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Addresses.

MEMORIAL TO THE LATE J. T. ESKRIDGE, M.D., OF DENVER, COLO.

CHAIRMAN OF THE SECTION ON NEUROLOGY OF THE AMERICAN MEDICAL ASSOCIATION.*

CHARLES K. MILLS, M.D.
PHILADELPHIA.
AND
FRANK P. NORBURY, M.D.
JACKSONVILLE, ILL.

ADDRESS BY DR. MILLS.

Through the death of Dr. J. T. Eskridge Jan. 17, 1902, this Section has been deprived of a chairman than whom none could have filled the position more worthily. In spite of ill health, Dr. Eskridge started the work of preparing for this meeting just before his last illness. He was in his fifty-fifth year at the time of his death. He graduated in 1875 at the Jefferson Medical College, Philadelphia, and, after nine years filled with hard work and high ambition spent in that city, he went, because of ill health in 1884, to Colorado. He was one of the founders of the Philadelphia Neurological Society. During his brief medical career in Philadelphia he held many important positions in the hospitals and medical institutions of that city and took active part in the proceedings of its medical societies, to which and to the medical journals of that period he was a frequent contributor. His most important and enduring work, however, was done in the far west. Probably no one west of the Mississippi has stamped his name so indelibly in the history of neurology. He stands, indeed, among the foremost neurologists in the entire country.

Dr. Eskridge was a member of a number of the most important national medical organizations, in all of which he took a deep interest, but in none more than in the American Medical Association, to whose proceedings he frequently contributed. When the American Medical Association met in Colorado in 1899 he was among those who took the warmest interest in welcoming the members of the Association to that state.

He was Professor of Neurology in the Denver University and in the University of Colorado, and was Dean of the Medical Faculty of the latter institution. He was a member and at one time president of the Colorado State Medical Society. He was a member of the American Neurological Association, the American Medico-Legal Society, the American Academy of Railway Surgeons and the American Medico-Psychological Association. At the time of his death he was first vice-president of the American Neurological Association. Dr Eskridge's contributions to medical literature, chiefly to neurology and medical jurisprudence, were numerous and of a high order. In his writings, as in the practice of his profession, he was distinguished for the carefulness and thoroughness of his work. As a neurologic diagnostician he had few equals. As a medical jurist he was equally respected by the legal and medical professions. As a medical witness, as a teacher and as a writer he was honest in his convictions and in his expression of them. After his health broke down in 1884 it was never fully restored, yet he pursued his ends, which were always honorable, with an untiring zeal. In private life he was retiring and of a kindly disposition. His death is a great loss, not only to neurology and the medical profession, but to the community in which he lived and labored.

ADDRESS OF DR. NORBURY.

The strangely fascinating influence thrown out by the enthusiasts in all professions strikes a sympathetic cord in the heart of the student, touches and dominates his eagerness for knowledge and gives to him that which we call inspiration. It is this inspiration which imparts zeal, which in its turn lends to knowledge that wonderful power for good, that essential for achievement—enthusiasm. "Knowledge without zeal sits in its study, plays with its books and does nothing," but when under the influence of the magic power of working enthusiasm, it accomplishes great things.

All great achievements in life have been accomplished by enthusiasts, zealous in their works and keeping in view the three elements which Abbott says are necessary to real success in life, viz.: "A great work undertaken, a great enthusiasm undertaking it, and a great end kept steadily in view." It is self-evident that as a fundamental requisite to success in clinical research, pathology and practice in the art and science of medicine, enthusiasm stands foremost.

He whom we are here to memorialize was an enthusiast, a zealous enthusiast, a working enthusiast. Most of us, I dare say, learned of him by having come within the magical influence of his enthusiasm; felt the striking of the sympathetic chord and sought to know more of his work by being led on and on into the special field of his labor through the fascination of his originality. Few men in our profession have worked more diligently than he, and few have attained by their own persistent research his breadth of clinical culture; obtained step by step, pushing onward from one influential station to another and being adequate to the highest of them all.

Eskridge was an enthusiastic student of neurology to the last; he worked in his field until he knew the

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Nervous and Mental Diseases, and approved for publication by the Executive Committee: Drs. Frederick Peterson, Hugh T. Patrick and H. A. Tomlinson.

technic of his art. He acquired this art largely through his own powers of original research, his analytical discriminations and logical reasonings. He had no narrow views; hence no distortions to mar his conclusions. His freedom from bigotry, his catholicity of mind gave him unusual clinical foresight, and as a result remarkable powers in differentiation. Clinical culture was his, and the vast stored-up mass of impressions gleaned from his many years' work in this rich field, made him the safe counselor, the wise teacher, the able practitioner that he was. He was an indefatigable worker in spite of his physical infirmities—in fact, we may say that his infirmities seemed only to throw into bold relief his mental activity and give brilliancy to his work. It made him intense, absorbing in his work in order that his own sad experiences with disease might be drowned in the delights of intellectual life. Never was there an invalid who bore his maladies so cheerfully or who made so light of the terrible burden which he carried. To better be able to live with his invalidism, he was systematic in his rest and work, aiming to do the maximum with the least physical suffering. Even when within the clutches of his last illness he worked with that same enthusiasm as characterized his early efforts in Philadelphia. Of late years, when he foretold the coming of his end, he worked with singular persistence, doubtless to be perfect in his art—for his was a perfect art—that while he lived he could, at least, write of the specialty that he loved so well. Just here let it be said that this singular persistence of which I have just spoken, is shown in his plan of first mastering his specialty before he began to write for publication.

As a writer his ability was shown in the startling distinctness with which the picture of disease was penned; signs, symptoms and characteristics, diagnosis and differential diagnosis, stand out clearly by the aid of his precision in description. Few contemporaries have surpassed him in this feature of his work. His mind was logical; his thinking, precise and original; and it may be said of him, as was said of Alexander Hamilton, "He could do the thinking of his time."

Eskridge saw the birth of the art and science of neurology as a specialty, and as an American representative, wholly trained in this country (for he had no European experience) he was a leader—a leader of higher thought in the art of medicine; he disposed of many of the supposedly insuperable boundaries surrounding the nervous system and led the way for other workers to invade the mysterious home of mental and nervous activity. By reason of his continuous work he had no hours for emotions of despondency, for until the last work was the panacea for all of his afflictions.

It is not my purpose to follow his life outside of the domain of clinical medicine, for this has been done in a more fitting tribute by his fellows in Denver. To the profession who have attentively studied the literature of clinical medicine, there comes a feeling of personal bereavement in the loss of J. T. Eskridge; he was in touch with all of the great advances being made in medicine, and proved by his own observation the researches of others, and through his logical pen aided in the adoption or disapproval of their work. His own work was always scientific, always lucidly presented in his own rare literary style, and above all, it was never commonplace, because such contributions were never possible with him.

In conclusion, let me speak of his personality, the extra-professional characteristics, as delineated by Dr. Munn, of Denver, before the Denver and Arapahoe Medical Society, at the memorial meeting, Jan. 28, 1902. I present extracts from Dr. Munn's appreciative and loving tribute to Dr. Eskridge because as a close friend and neighbor he gives, in more fitting language than can I, the nobility of character of that great man whom to know was to admire and to love, and, I may add, reverence.

"Those who have most work of their own can usually find more time to help others than can the idle, the selfish or the unemployed. It was wonderful how many men and women, how many diverse interests, and what different organizations claimed and received Dr. Eskridge's advice upon matters that were not professional. Matters of public and private interest were often submitted to his adjudication; measures of legislation sought his approval before their final passage; the courts were guided by his advice, and public officials deferred to him upon matters of policy. Those having personal knowledge of his stand in regard to many questions thus submitted to him, were impressed by the uprightness of soul and the impartial judgment with which he was gifted in such high degree. That such a man should die so untimely, called from his useful activities when he had reached an age that seemed to entitle him to some rest from the more pressing physical labors of life, yet when his mental and moral capacities might most profitably have been continuously exercised for the whole community, is, indeed, in the largest sense of the word, a public calamity.

"From the hospital and from the home, from the office and from the bedside, from the hovel and from the palace, from the people and the press, as well as from our own profession, the expressions of grief and bereavement at the passing of this man have been practically universal.

"At the bedside of the poor, as well as of the rich, we met him daily; and he was as kindly, as considerate, as conscientious, with the one as with the other.

"And if the hereafter holds for us further opportunities for activity and usefulness, as many of us devoutly believe, we know where we shall meet again this man who clothed the naked, fed the hungry and visited those who were sick or in prison.

"So, we say farewell to the frail body—and farewell to the great soul.

"The laurel and the bay are naught to him; they do but serve to make the lesson of his life and death more precious to us all."

ADDRESS ON AN EXHIBIT OF EARLY (PRIOR TO 1860) BRITISH AND AMERICAN OPHTHALMIC LITERATURE.*

CASEY A. WOOD, M.D.
CHICAGO.

At the outset let me say that the books, pamphlets, atlases, portraits and other illustrations of the early history of ophthalmology in this country and Great Britain are almost entirely derived from the private collections of the members of the committee. In addition to these we are equally indebted to the kindness of Dr. Dennett, librarian of the New York Eye and Ear Infirmary, for a copy of the first annual report, by-laws and other interesting matter relating to the oldest of our ophthalmic hospitals. Little or no notice is taken of the

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Ophthalmology, and approved for publication by the Executive Committee: Drs. Frank Allport, H. V. Würdemann and J. A. Lippincott. The Exhibit was gathered by a Committee, appointed for the purpose, consisting of Casey A. Wood, Chicago, chairman; Harry Friedenwald, Baltimore; A. A. Hubbell, Buffalo, and A. R. Baker, Cleveland.

numerous monographs (about one-tenth of the whole) on cataract, since Dr. A. A. Hubbell, one of the members of our committee, will address you on that important subject. Particular attention is invited to the library and other relics in this exhibit of Dr. George Frick, which we are able to present through Dr. Harry Friedenwald, by the courtesy of the Medical and Chirurgical Faculty Library of Maryland. Dr. de Schweinitz has kindly loaned the first number of the Royal London Ophthalmic Hospital Reports and a copy of Brigg's Ophthalmographia, formerly in the library of the Duke of Bedford.

The exhibit of treatises and text-books, as well as of monographs on the eye and its diseases, will be found to contain, almost without exception, a copy of every work written in English or by an author of British or American birth between 1660 and 1860.

Just as a history of ophthalmology would not be complete—indeed, could not be written—without considering it as a part of the history of medicine, so it is impossible to divorce ophthalmic from general medical literature. The very form in which the fathers of ophthalmology cast their contributions to literature is that of the surgeons of their time. For this reason, if for no other, a full account of even that comparatively small portion of the world's ophthalmic literature which was written in English prior to 1860 could hardly be given, even in abstract, at this time and place. As you know, since the time of the ancient Egyptians attempts have been periodically and repeatedly made to set aside a class of so-called "oculists," but the better sense of the medical community has ever recognized the fact that ophthalmology is not an off-shoot from, but a veritable branch of the tree of medical knowledge, and that as such it can thrive only when in healthy union with the parent stem. I think, therefore, that it is in keeping with this idea of the universality of the medical art and somewhat to our credit that there never has been a distinctive "English" school of ophthalmology, although both Great Britain and America have not only contributed their store of discovery and learning to the common fund, but at one time (during the latter part of the eighteenth century) the former country probably furnished the most distinguished ophthalmologists in Europe.

The writings of modern Egyptologists, and in particular the editors of the Ebers papyrus, furnish us with proof of what had long been suspected, viz., that the Greek schools of medicine derived much of their knowledge of ocular therapeutics from the Egyptian oculists. As you know, medical and surgical specialism had its rise and its perfect fruition in the ancient Nile region. Not only were there exclusive "eye doctors," but the whole body was divided and subdivided among the profession to an extent undreamed of even in our day. From them, through the flourishing Greek schools of anatomy, the Roman oculists (*medici ocularii*) arose, to be in their turn followed by the Arabian ophthalmologists.

In the committee's exhibit will be found a well-preserved, medieval-Latin edition, printed and painted during the years 1489-91 by Boetius of Venice, of that renowned surgeon-oculist Avicenna,[1] or Abu Ali El Hosein Sina, born in Bokhara about A. D. 925. The fifth book of the folio is entirely devoted to a description of the eye and its diseases. It was mainly from this source that the sixteenth century English surgeons drew their inspiration. Then, as now, it was considered proper in every general work on medicine to set aside at least a few chapters to a consideration of the ocular apparatus and its diseases. Time will permit me to refer to only one of these in the exhibit, an English edition, by Bartholomew Traheron (1543), of Johannes Vigo, that celebrated Italian surgeon who lived at the end of the fifteenth and beginning of the sixteenth century. "These most excellent workes of Chirurgerye," containing many references to Avicenna, appear to satisfy at least the editor, who, in the usual dedication to the patron, remarks, "whyche thyng if it shall plese your ryghte godlye iudgemente, and suche as youe be, the barkynges, of other shall lytle trouble me."

Appended to the translation is a glossary for the student. From it we learn that a "cataracte" is a "slymy humour, growen togyther lyke yse, betwene the skynnes of the eyes, cornea and coniunctiua, cometh aboute the apple of the eye." Of collyria "there bene two kyndes thereof. One is liquide and the other is drye, and that they cal barbarously a Sief." Probably the latter reference is to the molded tablet, containing various ingredients, often bearing the name of the oculist imprinted on its surface, a solution of which when placed in water formed a sort of panacea for eye affections. Scotoma is defined as a disease "when darkenesse ryseth before the eyes and when all thynges seme to go round about. This dieases is (also) called vertigo, in latyne, of turnyng about, though some go about (we may imagine the contempt on the editor's face!) to make a follysh difference of scotoma and vertigo."

The first separate and complete treatise on the eye published (London, 1622) in the English language was written by Richard Banister, Mr. in Chyrurgery, Oculist and Practitioner in Physicke. If one compares this text-book with the larger and fully illustrated German work of Georg Bartisch, which, by the way, was published forty years before, we shall find that they both hold up to ridicule and contempt the deeds of those empirics that in their day, as in ours, prey on an ignorant and gullible public. Especially severe is Banister on those "Mountebanks" who fail to observe the well-known surgical rules, thus done into poetry:

> **Couch cataracts upon a day so faire,**
> **That neither wind nor clouds disturb the Ayre,**
> **When spring with simples fils the Earth's rich lap,**
> **Or Autumne makes the tree put off his cap,**
> **The Moone i' th' full, or in coniunction fly,**
> **Or tracing Aries, or in Gemini.**

"Great is the hurt," continues Banister, "that is done to the eyes, being pearced with an instrument, in an open and airy place: for the aire getting into it, bringeth many euill accidents to the part, most commonly priuation of sight." Ignoring both these prose and poetic aphorisms the aforesaid charlatans, says he, "take their patients into open markets and there for vain gloiries sake, make them see, hurting the patient, only to make the people wonder at their rare skill. Some others make scaffolds, on purpose to execute their skill upon, as the French-men and Irish-man did in the Strand, making a trumpet to be blown before they went about their work." However, the punishment fitted the crime more promptly than it does in this day and generation, for "they were called before the company of the Chirurgions, being sharply reproued, soon left the city and their abusive practice."

1. My attention has been called by Dr. Frederick P. Henry, Honorary Librarian of the Philadelphia College of Physicians, to a still older work—said by Hain to be the first edition of the first printed book on ophthalmology—now in the college library. It is entitled "De oculis eorumque aegritudinibus et curis." It was written by Benvenutus Grassus, and published at Ferrara, by Severunus, in 1474.

Banister early observed the harm that follows the application of acrid and astrigent agents to inflamed and irritable eyes, and frequently protests against such treatment. This is the more to his credit, since in his time disease was regarded as an entity, or at least as an excess of normal or diseased humor, to be driven or purged from the body. "A tender Eye," says he in his Breviary, "must have tender and gentle medicines. Sharpe and tart medicines doe exasperate. The white of an egge and woman's milke doeth moysten and cease paine. Metals are not to be used in the beginning (of an acute inflammation.). . . . . In ophthalmia medicines, they ought to be light and soft, without biting. Allam, copperise, Sandiver, Salt and such like, these used alone, or mixed with other powders or water made from them, must not be too sharpe. . . . I have often healed (eye diseases) with medicines that have no smarting quality at all, which cooleth, comforteth, and strengtheneth the eye. . . . Some in dressing of the Eyes will use some sharp water of allom, copperisse, or such like, three or four times in a forenoone, that so soone as the sharpness of one dressing is past, then beginneth another, and another, as though Rome was built in one day, or a disease in the eye were to be cured in one houre; whereas they do not consider, that much use of sharp medicines, either Colleries, water, powders, etc., do destroy the force of the sight: therefore beware of such hasty healers, who may well be called hasty hurters; for tender partes must be tenderly dealt withall, and that is safe dealing."

Strange it is that in the face of such experiences Anglo-Saxon surgeons continued for four subsequent centuries to inflict their zinc, silver and copper barbarities on the eyes of defenseless patients. Local applications of blue stone, silver nitrate, alum and other metallic substances, mixed with a heterogenous mass of vegetable excipients, gathered at the proper time of the month, with relation to the proper signs of the zodiac, constituted the ordinary treatment of eye affections. The general treatment may also be gathered from Banister's Breviary, of which the following is worth quoting: "When paine is exasperated, open a veyne largely in a full body, to prevent great danger. Fiery humours must be evacuated by cupping and horse leaches. Behind the eare is best. Use blistering to the necke. If the disease be stubborne, use visicatories to the top of the head and sutures. Purging the head with pilles, lest that part of the humour unsettled be driven into the Nerve opticts, and thereby cause grievous accidences, as staphiloma and such like, which I have often seene."

The early oculists had troubles like unto our own. "It is an usual custome," says Banister, "as soone as one complaineth of paine or griefe of the eyes, to have amongst twenty women, nineteene seuerall medicines told presently, little notice of the nature of the disease being taken, and the power of the medicines almost altogether unknowne. Within compasse of the womans Antidotary are roasted apples or crabs, while some of them licke the Eye with their tongues, some put a lowse into the eye, the juyce of goose dung, the white part of hen's dung."

A very fair description of the anatomy of the eye is given by Banister as well as by Wm. Briggs, whose monograph, "Ophthalmo-graphia, sive Oculi ejusque partium descriptio anatomica," was published in Leyden in 1686, and is spoken of by Hirsch as one of the most important ophthalmic works of the seventeenth century. This small volume is illustrated by plates showing the optic nerves joined at the chiasma, but with uncrossed fibers. In his New Theory of Vision, presented to the Royal Society, prefaced by a letter of approbation from Sir Isaac Newton, appears the statement, that while there is no crossing of the optic fibers yet single vision is obtained by the irritation of identical parts in the retina. Briggs was probably the first to declare this doctrine, as well as among the first to suggest that accommodation is brought about by changes in the lens.

A first edition of Newton's lectures is presented in our exhibit, and it is not necessary for me to remind you what an important rôle they play in our knowledge of physiologic optics. Query 15, at the end of Newton's "Optics," clearly states the hypothesis of the decussation of the optic fibers and their relation to human binocular vision, although it was, later, Walloston who showed just how this occurs.

Inaugural Dissertations and Disputations were not to the same extent a part of early British university life as they were and are on the continent. I have searched several hundreds of these sixteenth, seventeenth and eighteenth century theses in the hope of finding the name of an American graduate of Leyden, Göttingen or Utrecht, who presented a defense of some proposition pertaining to the eye, but have not found a single one, although I think there may be such, and would be glad to hear of any I may have overlooked. Even such students of English origin are few. Here is one, James Lidderdale, whose "Disputatio Medica Inauguralis de Inflammatione Oculorum" was presented, in pompous Latin, to the Leyden faculty in 1708, and dedicated, in the usual terms, to his relatives and friends. There are twenty-five pages, three of which are devoted to that serious disease, inflammation of the muscles of the eye! Inflammation of the optic nerve is exhaustively dismissed in half a page and affections of the lachrymal sac in about a third of a page. To my mind the most interesting portion of these two and three-hundred-year-old theses is the occasional appendix. In Dr. Lidderdale's case, five friends, one anonymous, one probably Scotch, one French, one German and one Italian, tell him, in various languages, what a loss the university will sustain and what a prize Scotland will gain when he once more puts foot on his native heath. The English contribution is too good to miss. You will notice that it takes the form of an acrostic:

To the Learned and Ingenious James Lidderdale, A.M., M.D.:

Ingenious Friend
All did admire to see,
Your parts, your learning, and your modestie
In that De inflammatione oculi.
Let the admiring croud to admire go on,
Its short of thy desert, when all they've done,
Doctor of Physic and Philosophie;
Deservedly enrol'd M.A., M.D.
Each Faculty you know; to say how wel,
Requires (if possible) those that excel,
Dryden, or Waller, Cowley, Philomel,
Accept my wish, tho in an homely stile
Let still successe on your endeavors smile
And be the fam'd Physician of Great Britain's isle.

The dawn of the eighteenth century saw the rise of many celebrated surgeon-oculists, the best known being Thomas Woolhouse and John Taylor, his pupil. The career of each closely resembled that of the other. Both acquired a continental reputation, though not always of the highest character; both were appointed surgeon-oculist to almost all the courts of Europe; both were

well educated, skilled operators, publishers of many works on the eye in English, French, German, Italian, etc., and both received numerous degrees from the universities of the continent and honors, presents and decorations from emperors, kings, princes and other potentates. Both eventually settled in Paris, where they attracted many students and patients.

From the middle of the seventeenth to the end of the eighteenth century frequent reference is found in Forest, Thomas Hope, Banister and others to the practice indulged in by certain oculists of going about from town to town practicing their art. Although there could not be any objection to a surgeon's traveling about in the pursuit of knowledge and for the purpose of acquiring a wider reputation, yet the circumstances surrounding these journeys, the assumption of superior knowledge, particularly of operative skill, the ostentatious display of a retinue of servants, the wearing of rare jewels, fine clothing, decorations, etc., the undisguised attempt to displace the regular surgeons at the various courts, the publication of long lists of rewards for service and accounts of cures in the families of reigning princes or members of the nobility—these brought into disrepute all peripatetic oculists of whatever degree. Moreover, the success of such men of the Chevalier Taylor type bred a large number of humble and unskilled imitators, who, without any real knowledge of eye diseases or any skill in surgery, went through the country extorting money from the ignorant, couching cataracts and selling panaceas for eye diseases, with the market place or cross roads for their offices and musical instruments to herald their approach. Forest thus speaks of those that about this time spread over Holland and invaded England: *"Sunt enim multi oculistae qui per urbes vagantur et fraudulenter agunt, pecuniarm extorquentes ab aergrotantibus multaque promittentes quae tenere non valent."*

Woolhouse was the author of a number of works, most of them containing attacks on Maitre Jan, Heister and others. This author was undoubtedly the first to suggest the possibility of making an artificial pupil, an operation later carried out by one of his assistants, Cheselden. Both French and German editions of his interesting treatises—1711 and 1715—on the various operations on the eye performed in his day, as well as a description of the instruments employed, are still extant. Taylor, a student with Haller under Boerhaave, was the more able, more brilliant and more scientific of the two, and it is now admitted that if he did not actually perform the operation, he claimed to have cured strabismus by a myotomy of the recti muscles, so that we must assign to him the honor of being the first to advocate the measure itself. He also described systematically over 240 eye diseases.

It must not be forgotten that the early English surgeons vied with one another in discovering additions to the known and published list of diseases, and thus we find, through the decades, a sort of numerical competition which was reflected in the titles of their treatises and text-books.

Wm. Cheselden, who made the first artificial pupil, was born in 1688, and was famous as an anatomist. He was one of the surgeons to St. Thomas' Hospital. Samuel Sharp, born in 1778, was a pupil of Cheselden and one of those who performed a modified Daviel extraction operation. We must not forget Alexander Monro, (1697-1767), Scotch ophthalmic surgeon, famous, as was Jonathan Wathen, for his studies of the lachrymal apparatus and its diseases.

In 1759 William Porterfield published, in two volumes, his masterly "Treatise on the Eye, the Manner and Phenomena of Vision," chiefly a work on physiologic optics that, in conjunction with the writings of Isaac Newton and Thomas Young, forms an enduring monument to British ophthalmology. You all remember the letter in which our Dr Knapp mentions the tribute paid by Helmholtz to Young—that when, in working out a problem in optics, an apparent contradiction of a statement made by the English mathematician was encountered it uniformly happened that Young was correct. Two English editions of Young's works have been published; the first, his lectures in two large volumes (1807), and the second in three volumes by Peacock, 1855. Of these the earlier edition is to be preferred.

Wm. Rowley, born in 1743, was even better known for his ophthalmic writings. His "Treatise on 118 Principal Diseases of the Eye, in which are communicated several new discoveries Relative to the Cure of Defects in Vision, with Original Prescriptions," dated 1790, is well worthy of perusal. On page 358 is printed an extract from a letter written by one Dr. Benjamin Franklin to "My worthy friend, George Whately, Esq., Treasurer to the Foundling Hospital."

By Mr. X. saying that my double spectacles can only serve particular eyes I doubt he has not been rightly informed of their construction. I imagine it will be found pretty generally true, that the same convexity of glass through which a man sees clearest and best, at the distance proper for reading, is not the best for greater distances; I, therefore, had formerly two pairs of spectacles, which I shifted occasionally, as in traveling I sometimes read, and often wanted to regard the prospects. Finding the change troublesome, and not always sufficiently ready, I had the glasses cut, and half of each of each kind associated in the same circle. By this means, as I wear my spectacles constantly, I have only to move my eyes up or down, the proper glasses being always ready. This I find more particularly convenient since my being in France, the glasses that serve me best at table to see what I eat, not being the best to see the faces of those on the other side of the table who speak to me; and when one's ears are not well accustomed to the sound of a language, a sight of the movements of the features of him that speaks, helps to explain; so that I understand French better by the help of my spectacles.

"I have ordered," adds Rowley, "some of these spectacles to be made by Mr. Bemfleet in Saville Passage, near my house, and have recommended their trial to several people, by whom they are highly approved."

The latter end of the eighteenth century saw the fruition of the art of engraving on steel and copper—now lost or almost lost to us—and Rowley's treatise is well illustrated by drawings reproduced in this satisfactory manner.

There is some connection—sociologic or religious—between the rather sudden disappearance of a belief in witchcraft and the discarding of certain superstitions in medicine, not to be explained altogether by the dissemination of scientific truth. John Fiske has drawn our attention to this curious fact in the matter of the belief in witches in New England and it forces itself on us in a review of ophthalmic writings. In George Bartisch's treatise not only is witchcraft of the eye acknowledged and its symptoms minutely described, but the charms to be worn and the prayers and other means necessary for the prevention of the diseases and its treatment are duly set forth. Comparatively little space is devoted to matters of this character in English publications. Rowley, for example, pleads for a rational treatment of the king's evil, and his work is almost as free of dogmatic statements concerning things

supernatural as is any work written in our own generation.

John Ware, who died as late as 1816, about this time wrote voluminous works on various ophthalmic subjects, most of them published by his son in two volumes, 1818.

Two features particularly distinguish eighteenth century therapeutic literature, viz., long, complicated prescriptions and the search for cure-alls. Examples of these are furnished, for example, by Sir Hans Sloane—him of the Museum in Lincoln's Inn Fields—physician to His Majesty, etc., in a pamphlet, dated 1745, and entitled "An Account of a most Efficacious Medicine for soreness, weakness and several other distempers of the Eye." Thompson's eye water and Petit's eye salve of our day, with a number of minor contestants, now hold the field of popular favor, but the idea of the panacea is the same.

As we approach the beginning of the nineteenth century the first writing on eye diseases by an American of which I can find any account appeared, according to Harry Friedenwald, in the *Medical Repository,* Volume VII, page 28. It is entitled "An account of a case of Fistula Lachrymalis, with reflections on the different modes of operating in that disease." The author is Dr. Pierre Chatard, who settled in Baltimore in 1797, but who does not appear to have made a specialty of eye diseases. From this time forth comparatively frequent and important additions were made to ophthalmic literature, not only in Great Brtiain, but in America. The British and French ophthalmologists were then the best known in the medical world, although they were soon to be rivaled and eclipsed by the brilliant labors of Barth, Beer, Schmidt and other German surgeons. I have time to mention only a few of the more important.

Sir William Adams wrote during the first two decades of the last century. Following him were many others, authors of complete treatises of goodly proportions, which, as a rule, were well illustrated and especially replete with reliable descriptions of diseases of the eye. I wish to mention particularly J. C. Saunders, the first edition of whose celebrated treatise was published about 1811; G. J. Guthrie's "Lectures on the Operative Surgery of the Eye," which were published in London, 1823; John Vetch, "A Practical Treatise," London, 1820; A. Watson's "Compendium," Edinburgh, 1828; Wm. Lawrence, "A Treatise on Diseases of the Eye," 1833; Benjamin Travers, a deservedly popular text-book, with several editions, first issued in 1820; Middlemore's treatise, two volumes, published in 1835; Morgan's volume of lectures in 1839; F. Tyrell's two-volume treatise in 1840; Walker's "Vade-Mecum," in 1843; Haynes Walton, and Wharton Jones. Last, but by no means least, we note the appearance of the first edition of the greatest of all the British text-books, by Wm. Mackenzie, in 1830.

The works of most of these ophthalmic writers—and I have by no means given a complete list of them—ran through several editions, and a few of them were translated into foreign languages. The treatise of Jno. Cunningham Saunders is of especial interest to us because it was the first complete work on disease of the eye published in America, having issued from the press of Benj. Warner at Philadelphia in 1821. It was very appropriately dedicated to his teachers of anatomy (of which Sir Astley Cooper was one) and to the officers of the London Infirmary for Curing Diseases of the Eye, whose legitimate descendant is the Royal London Ophthalmic Hospital, better known as Moorefields. Saunders was undoubtedly the first to propose a special hospital for eye diseases, and was the founder of this one, which was opened for the reception of patients in March, 1805, although the Royal Westminster Infirmary was formed and established a few months previously. Saunders was not fated to enjoy, for any length of time, the practice of the house he had builded. Symptoms of organic disease of the brain developed in the beginning of 1809. Although the disease interfered greatly with his work, he refused to take the needed rest from his arduous labors. The description of the eye symptoms in his case is interesting, one might say almost pathetic, viewed from the standpoint of our time. "He was affected with an imperfect amaurosis of the right eye. The eye was carefully examined, but the pupil was found to be of its proper size and figure—objects, besides being obscured, were diminished in size and deranged in position, the accurate distinction of colors was lost." After nearly a year of suffering he died in January, 1810. The first edition, most of which was written while barely able to hold pen in hand, was edited by his friend J. R. Farre, illustrated by colored engravings and published at the expense of the infirmary for the benefit of his widow.

(To be continued.)

Original Articles.

A MODIFIED FORM OF TEST-CARD AND TEST-LETTER.*

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BUFFALO, N. Y.

The importance of painstaking care and accuracy in determining the refraction of the eye is well understood by the ophthalmologist of to-day. Indeed, in America, those in the front rank in every department of medicine recognize the great value, for the relief of many disturbing conditions, of accurately correcting refractive errors. Any suggestions which may render results more certain are of value, and the careful ophthalmologist will spare no effort to reach a decision as nearly correct as possible, well knowing that what appears to be a slight error in the measurement of any eye's refraction may render valueless the work of making the measurement, and cause a failure of his attempt to relieve a patient of some distressing condition.

The question of illumination, the position of test types with reference to patient and light, and even the arrangement of the case of test lenses, all are worthy of attention. Since, with few exceptions, our final determination of the refraction is made with test lenses and test types or letters, these occupy the place of chief importance in this work. No great change, in the way of improvement, has been made in test-letters since the classical work of Snellen in 1862. He investigated the problem thoroughly and gave us the geometric letter of definite size and proportion of line. For general use the letter must still be the best form of test-object, as it best serves to indicate the accuracy of the patient's judgment as shown by the correctness with which he names the letters. Much of the difficulty experienced, and the uncertainty of results reached with this, the final method, depends upon lack of careful and accurate observation on the part of the patient; and much of the "refractor's" success depends upon the aid which he gives the patient, in educating him to observe nicely;

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for few persons observe comprehensively when subjected for the first time to a test of this kind.

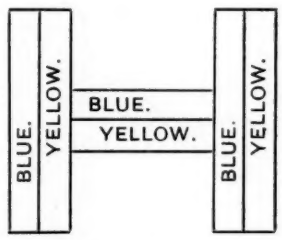
That there are objections to the test card, as ordinarily employed, I have long been convinced. One of the most serious of these is that it quickly produces retinal fatigue, a result which is caused by the glare of light reflected from the surface of its white background. This is a very important factor in causing fatigue of the eye and lessening its sensitiveness to slight changes in distinctness of outline of the small test letters. Dr. Gould of Philadelphia has devised a card which is free from this objection, by making the ground black and the letters white. In this form of test card there is, however, an objection and that is the effect of irradiation seen about the letters, an effect observed when a small white body is viewed against a large dark background. The effect of irradiation is to increase the apparent size of the small object and at the same time to lessen the sharpness of its outline. Except in intense illumination, the effect of irradiation is not observed with a small dark body on a light ground. Another imperfection in the ordinary test-card is shown in the fact that with nearly all eyes, save those having very acute vision, the decision regarding the glass which gives sharpest outline to the letters is often uncertain within 1/4 d., and in low amounts of astigmatism the position of the axis is uncertain within an arc of 5 to 10 degrees.

While it is evident to any one at all familiar with the subject, that no device can make the task of measuring the refraction a simple or easy one, yet I think that some of the difficulties encountered may be eliminated or lessened. As the result of an attempt to avoid some of the objections to the ordinary form, I have devised a series of letters which I here show. Some of the letters, it will be observed, are in color on a ground of another color, while others are built up of two colors and are on a ground of neutral color. The two colors used are, in both instances, yellow and blue; colors which are complementary. The reason for using these two colors will appear later on. By using a background of color, the glare of light and retinal fatigue resulting therefrom is lessened, and we are enabled to take advantage of, and utilize, the phenomena of contrast of colors in such a way that the lessened illumination is not a disadvantage as would be the case with a test-card of black letters on a white ground. It is well known that a color can be materially changed in brilliancy and saturation by altering the color which lies adjacent to it. Without entering into a detailed examination of the laws which govern the result, it is sufficient to say that when a colored object, such as a letter, is seen on a ground of complementary color, the color of the letter is strengthened and made more saturated and brilliant. That this must be so is evident when we reflect that the after-image of a colored object is always in complementary color. This phenomena is most noticeable when two colors are contrasted successively in the following manner: A small square of black paper is placed on a sheet of yellow paper (any other color might be used) and the attention is directed to the edge of the former. If now the black square be suddenly removed the observer sees in place of it a luminous spot which in this case will be yellow, but what is remarkable is the fact that this yellow image or ghost will be more intense and saturated in color than the rest of the ground. The rest of the yellow paper will appear as if gray or white had been mixed with it. This experiment succeeds with paper of any bright color, and Helmholtz has shown that the same effects are obtained with the use of pure spectrum colors. If instead of employing a black square we take one which has a color complementary to that of the ground, in this case blue, the result is much the same as before, except that the yellow ghost is now still more intense and brilliant in color.

These phenomena are cases of what is called successive contrast, because we look in succession from one surface to another. When colored surfaces are placed in juxtaposition and viewed in the usual way, successive contrast still plays an important part, and the appearance of the colors is still modified according to its laws; for although we attempt to confine our attention to only one of the colored surfaces, the eye involuntarily wanders to the other; for absolutely fixed vision is quite opposed to our common habit, if, indeed, it be not an impossibility.

Yellow, being the most luminous color in the spectrum, is selected for the ground and blue, its complementary, the color for the letter. Not only is the blue letter more sharply defined, by contrast, but the yellow field also gains in brilliancy, in the same way. By filling in much of the field with black, leaving the background of yellow only sufficiently large to give the proper effect of contrast, we still further diminish the amount of harmful light which can reach the eye. In practice it is found best to have the yellow ground for each letter about three times the diameter of the letter, in the small letters. All else may be black. By this means we still further increase the brilliancy and contrast of the yellow and blue. The letters are of the proportions of those generally used. In practice I find it advantageous to employ letters of a slightly smaller angle than 5′ in measuring the refraction, as in this work the aim should be to get the best possible vision—not to be content with 20/20, or what is commonly designated "normal vision."

Referring now to the letter built up in two colors, I will say that the object aimed at in thus making a compound letter is to produce a more sensitive test object than we have in the solid letter; something which will make more evident any lack of perfect focusing of the retinal image and, therefore, make it easier for the patient to be accurate in his decisions regarding the effect of different test lenses. The letters are made up of two colors which are complementary, one-half of the letter being blue, the other half yellow. The colors are laid longitudinally on each line of the letter, and the background is gray.



A mixture of complementary colors produces gray, and a letter which is built up, in this way, of complementary colors, will look gray to an eye which, through lack of proper focusing, receives the mixed colors on its retina. If, now, the letter is on a gray background as described, the eye can not distinguish the outlines of the letter, and with proper adjustment of colors the letter will be quite invisible. A slight overlapping of the colors, from imperfect focusing, gives the letter a gray appearance, like its ground, and a lens which corrects this overlapping and brings each color sharply into focus produces a much greater contrast than is the case with a black solid letter on a white ground.

Theoretically, any two complementary colors might be used, but practically, I find blue and yellow the most satisfactory, as they each offer the greatest contrast with gray and allow of a smaller letter being used than is the case with any other two complementary colors. It is important that the blue and yellow of which the compound letters are built up be true complementary colors as otherwise a pure gray does not result from their mixture. The proper colors must be determined by actual test with the rotating disc of Maxwell. The colors here used are, for the blue, cobalt blue mixed with a weak solution of gum arabic, just sufficient gum being used to bind the color to the paper; and for the yellow, a thin wash of gamboge mixed with water. These colors when mixed by a rotating disc produce a gray known by paper dealers as platinum gray or platina. Red and green, when mixed, produce a very light gray, but they offer a poorer contrast, separately, with gray, so that the retinal image must be increased in size by increasing the size of the letter to such an extent as to destroy its value as a test for visual acuity, and to greatly lessen its value for purposes of refraction. A letter made up of yellow and blue must be larger, but not greatly so, than a letter of solid color, to still be visible at the normal distance and when properly made is a very sensitive test object. In practice, I find it advantageous to combine the two forms of test-objects here described. The solid letter is the better index of visual acuity and the bicolored letter is the more sensitive test-object for use in measuring the refraction.

DISCUSSION.

DR. GEORGE M. GOULD, Philadelphia—Speaking of his very ingenious device, Dr. Starr alludes to a test card which I have used for several years, which is black with white letters, and finds that the effects of irradiation trouble him. I illuminate my cards very brightly, and place them at such angle that there is no sheen. I have nothing to complain of as to the irradiation. The card is devised according to the physiologic principles of the eye, the black being a non-stimulant of the retina, does not fatigue the eye, especially when the accommodation is paralyzed. So with this card I often put down normal vision as 20/15 and very often patients can read 20/10. I can read 20/10 easily with it, because the retina acts physiologically. I think Dr. Starr's ingenious device deserves further consideration, but it seems to me that the greatest contrast between stimulation and non-stimulation must be between black and white.

DR. B. A. RANDALL, Philadelphia—It seems to me that the prime conception as to test-letters is often lost sight of, and this is partly to be laid at Snellen's door, since in making the 5-minute letter he did not make more plain that he was testing the vision with its parts and interspaces of 1 minute. Therefore, a letter, whether of 5-minute angle or less, is not a test if its parts are not such as to make the interspaces 1 minute. In using the simple letters, as in the card of Dr. Gould and Dr. Starr, everyone finds that 20/20 is not the normal, but that lower lines can be read.

The matter of irradiation is a factor in the construction, as noted 20 years ago by Giraud-Teulon and Javal, and the doing away with this is of importance in our work and is well secured in a great many of the letters in general use, the best being that of John Green of St. Louis, where the terminal additions are half-blocks. The irradiation which is reduced by this can be made almost nothing by having the card, not the bright yellow, but merely a cream color or India tint. To those of you who are going to construct letters, I would say do not make the common error as to the size of your letters, for 99 out of 100 make the letter according to the tangent of the angle, while twice the tangent of one-half the angle is the proper thing; and see that each part and interspace subtends 1 minute. We can not be too precise in dealing with this subject.

DR. E. J. GARDINER, Chicago—I would like to ask Dr. Starr if the irradiation that troubles him may not be due to uncorrected astigmatism?

DR. STARR, in closing—In reply to Dr. Gardiner, it is certainly worse in such a condition, but I get it at all times with my own eyes. In regard to the form of the letters I can hardly agree with Dr. Randall. I prefer to test by means of the lines, rather than by the interspaces of the letters, and to use a line subtending a smaller angle than 1 minute. I want the patient to be familiar with the letter under observation, and to carefully observe which lens gives the sharpest outline of the letter.

METASTATIC SARCOMA OF THE CHOROID.*

MEYER WIENER, M.D.
ST. LOUIS.

Next to glioma of the retina primary sarcoma of the choroid is the most frequent intra-ocular growth. Metastatic, on the contrary, is extremely rare and has only been authentically reported by Shiess-Gemusens, Pflüger and De Schweinitz. In Norris and Oliver's System of Diseases of the Eye (1898), Hill Griffith, in his article on sarcoma of the choroid says: "Sarcoma of the choroid is always primary, always single and generally more or less deeply pigmented; it never affects both eyes." We are all familiar with the saying of Virchow that in those organs which show a special disposition to nurture new growths, metastatic foci are seldom seen. Thos. Axenfeld, in a review of "Tumors of the Eye," published in 1897, says: "We know of only two positive cases of metastatic uveal sarcoma; those of Pflüger and Shies-Gemusens and Roth." In Pflüger's case one eye became blind while in the other a tumor formed in the anterior chamber, with episcleral nodules following an enlargement of a nevus in the region of the right parotid. A microscopic examination was not made. Uthoff seems to think these two cases were metastatic carcinoma. A. V. Meiggs and Dr. de Schweinitz report a case of "Double-sided, flat choroidal tumor on posterior pole in a case of sarcoma of the anterior mediastinum" as follows: "A 21-year-old laborer had tumor of anterior mediastinum (which is described as round-celled sarcoma), numerous metastatic nodules in the brain, especially on base; marked tumor thickening of optic nerve as well as motor oculi and orbital muscles. Double-sided independent tumor of choroid." This case, according to Axenfeld, seems to correspond with one of three cases of metastatic "malignant lymphoma," which began also in the mediastinum but in these three cases there were no intra-ocular growths. Cases have been reported by Mitvalski, Esching, Uthoff, Kamoki, Schulz and others, of metastatic carcinoma of the choroid. In not a single text-book of ophthalmology that I possess is metastatic sarcoma of the choroid even mentioned.

In the case which I have to report both eyes were affected, and I procured one of them. The eye was removed from behind, the cornea, lens and ciliary body being left in the orbit. Only the posterior half of the globe was removed. The retina was completely detached, during the removal most likely, as it seemed to be of normal microscopic appearance when stretched out.

In this eye I find sarcomatous patches which are visible on macroscopic examination, and all varying in general appearance as to size, color, etc. The largest and most prominent lies just below the optic nerve entrance and apparently just including it. This patch is of oval

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Ophthalmology, and approved for publication by the Executive Committee: Drs. Frank Allport, H. V. Würdemann and J. A. Lippincott.

shape, 8½ mm. long in vertical diameter by 6 mm. wide in the horizontal; has white, lustrous, smooth appearance, clear and distinct outline and raised above surface about 0.5 mm. Immediately above this is a circular patch 3 mm. in diameter of the same appearance as the former in the center, but pigmented toward the circumference. Three mm. to the temporal side of this last patch is an irregular, ragged rectangular-shaped one, 6.0 mm. long by 4 mm. wide, of reddish color (probably from choroidal pigment), in some places darker than in others. This patch, unlike the others, has an uneven, broken surface, elevated in some places to about 1 mm. Two more sarcomatous areas are visible, one just below the macula lutea, the other just to the temporal side. Both of these are whitish with here and there deeply pigmented spots. Optic nerve seems to be somewhat swollen behind its entrance.

Microscopically, these patches are seen to be chiefly of the small round-celled type, with some spindle cells; growth is traversed by many blood vessels and channels. The growth is located chiefly in the tunica vasculosa, involving also, where it broadens out, the chorio-capullaris. Here there seems to be a special cell proliferation or accumulation from the lamina vitrea. Surrounding each patch are more than the average number of vessels, filled with blood, and some of these attaining large size. Scattered throughout the growth some choroidal pigment can be seen having undergone degeneration or change of shape in many instances. Optic nerve is swollen and somewhat thickened at the entrance to the globe, but there is no infiltration of sarcoma cells.

I am indebted to Dr. Willard Bartlett for the following postmortem report:

City Hospital, April 26, 1900. Permit No. 500, Div. 5. Name: B. C. Admitted April 18, 7:10 a. m. Died April 25, 6:30 p. m. Age 26. Nativity Vermont. Cadaver of a tall man, of slender, bony frame, poorly muscled with scant subcutaneous tissue.

Skin.—Skin is of a pale, grayish color. Beneath the skin of the scalp, face, chest, abdomen, upper extremities, inguinal and femoral regions, back and buttocks, are nodules over which the skin is movable and intact. The nodules are also movable on their bases. They vary in size from a buckshot to a hickory nut and are in consistency reasonably firm. On the left buttock is one pedunculated prominence the size of a large walnut, its convex surface showing a loss of substance. On the posterior surface of the sternum are various nodes varying in size from a buckshot to that of a hickory nut. Following the course of lymphatics in anterior mediastinum are similar nodes which are of a light-gray color.

Pleuræ.—The anterior and posterior aspects of both pleuræ are studded with nodules of same shape and color as those before mentioned. The pleuræ are non-adhesive and sac contains no unusual contents.

Heart.—On opening the pericardium there is seen a similar collection of nodules on visceral surface. The heart corresponds in size to fist of the individual and the apex is formed by the left ventricle. Nodules are seen beneath endocardium.

Lungs.—Fairly voluminous. Right lung is retracted. On section the left lung, upper lobe, is seen to be the seat of a decided interstitial change, there being small amount of air-containing tissue; also areas of miliary pneumonia and hepatization. The lower lobe is thickly set with nodules.

Pharynx and Œsophagus.—Mucous membrane coated with a mucopurulent mass. The retropharyngeal lymph spaces show nodules in size from a buckshot to that of a hickory nut. The tongue one inch from tip presents on right side a thickened area the size of little finger nail.

Larynx and Trachea.—Have their mucous membranes intact and covered with mucopurulent mass. The peribronchial nodes are decidedly enlarged, one presenting a node when split the size of a large hickory nut.

Spleen.—Size 16x11x4½ cm. Presents on convex surface several nodules of various sizes and within parenchyma are felt numerous others. On cut section are seen projecting from the softened, grayish-red splenic pulp, nodules varying in size from a buckshot to an English walnut; many of these depressed and red at center. The edges in all instances yellow. Trabeculæ and follicles not seen.

Suprarenal Capsules.—Left slightly enlarged: Right measures 6x6½x2½ cm.

Kidneys.—(Left.) Ureter and vessels as usual. Fatty capsule contains numerous nodules of varying sizes and but little fat. Kidney itself is in size 13½x7½x4½ cm. On cut section as well as on outer surface are immense nodes varying in size from a small shot to a hickory nut, many with reddish but slightly depressed center. Cortex wide and in part slightly clouded. Medullæ singularly free from growths, pelvis, however, presenting nodules. (Right kidney.) Ureter and vessels as usual. Size slightly less than that of left side and involved in same manner.

Liver.—Size, lateral 26; vertical 19; antero-posterior 7 cm. Outer surface in general smooth. Color, intense reddish-brown. Presents on anterior surface three large nodules, one of which has a reddish depressed center. On cut section is seen but one nodule. The central veins are decidedly wide and depressed. Organ contains a large amount of blood. Consistency firm.

Mesenteric Lymphatic Nodes.—In part involved, some nodules being as large as a small hickory nut. Grayish-red in color and of moderate consistency.

Stomach.—Interior presents mucous membrane swollen, clouded and bile stained; and, in addition, numerous ulcerated patches varying in size from a split pea to that of a dime, extending ½ cm. above surface, soft and ulcerated. There are felt in stomach wall numerous nodules about the size of a buckshot.

Intestines.—(Small.) Nodules of varying sizes, a few of which have ulcerated into lumen of gut; in addition, a few ulcerated patches, the size of a dime, apparently tuberculous. On the opposing serosa is a miliary granulomata. There, in addition, beneath the mucosa and serosa are grayish nodules the size of a hazel nut, a few of which are broken down into the intestine. (Large.) Aside from moderate filling of submucosal veins, no irregularities. The rectum is immensely distended. Breadth 15 cm. Mucous membrane decidedly pigmented, otherwise as usual.

Pancreas.—Size 13x4x½ cm. Its tail is thickened and shows marks of adhesions to surrounding structures. On section are seen similar nodules as those described disseminated throughout entire organ.

Bladder.—Mucous membrane intact; wall of usual thickness, and cavity slightly dilated. At the right of median line and at ½ cm. behind the verum montanum is one nodule lifting the mucous membrane, the same the size of a small hazel nut.

Brain.—Base of brain is, as far as vessels are concerned, uninvolved. Nerve trunks are as usual. The cortex is marked by circumscribed hemorrhagic areas varying in size from a split pea to a ten-cent piece. Pia mater is as usual. The cortical surface: ½ cm. from corpus collosum, in opening lateral ventricle, is seen to be the seat of a hematoma the size of a hazel nut. The ventricles contain the usual amount of the usual fluid and are not dilated. The fourth ventricle and aqueduct of Sylvius are, as regards contents and size, as usual. On making the horizontal grand incision on the right side, there is seen immediately beneath the corpus striatum in the temperosphenoidal lobe, a hematoma the blood of which is clotted and about the size of an English walnut. In the cortical portion of the frontal lobe, 1 cm. beneath the surface, is a hematoma the size of a hazel nut, contents fluid and brownish-red in color.

Cerebellum.—Macroscopically, as usual. Pons and medulla show no evidence of change.

Arteries.—On opening internal mammary artery it is seen that the nodules that lay in close proximity do not invade the lumen of the vessels. The lumen of aorta is narrow.

The origin of the dorsal arteries is irregular. Vessel wall is thin and highly elastic, the intima showing slight fatty metamorphosis.

Groin.—The mass in left inguinal region is as big as a turkey egg, consisting of irregular nodes, black in color, and rests on the Sartorius muscle, Poupart's ligament and the structures between forming the floor of Scarpa's triangle. The branches of lumbar plexus which pass under Poupart's ligament are uninvolved in greater part by the growth.

Spinal Cord.—Lower portion, dorsal region, are found, lying posterior to cord on dura mater, several flattened, rounded tumors, varying in size from a buckshot to a medium-sized hazel nut.

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DISCUSSION.

DR. EDWARD JACKSON, Denver—I would like to ask Dr. Wiener if he got the history at all.

DR. WIENER—I did not get any history from the patient and did not see the case until the patient was dead. I only reported the case because of its rarity. The growth probably started in the mediastinum and it seems to correspond in many ways with the case reported by Dr. de Schweinitz.

ONE THOUSAND PERSONALLY CONDUCTED CASES OF ETHYL CHLORID NARCOSIS.*

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After an anesthetic has been demonstrated to be effective, the next absorbing and vital question is its safety. On this score the brute force alone of numbers is telling, and I hope, therefore, in this narrative, to carry conviction in this direction on the basis of one thousand personally conducted narcoses with ethyl chlorid, and some collected statistics. These thousand narcoses were all conducted with ethyl chlorid sold under the trade name of "Kelene" and a mask of my own devising, described in previous communications.[1] For the present I must insist on the use of the above variety of ethyl chlorid, since other preparations marketed in this country, ordinarily intended for local anesthesia by freezing, are impure, containing methyl chlorid to facilitate evaporation. Furthermore, it happens that the above mentioned preparation of ethyl chlorid is the only one thus far provided with a suitable automatic cutoff to control the escape of ethyl chlorid, which issues from the vial in a very large stream. A number of masks described in foreign literature are not only ineffective but very costly. This simple, inexpensive device covers all requirements. The rubber cone makes an air-tight space about the nose and mouth; on to the gauze surface the ethyl chlorid is sprayed, the stream being released intermittently, from a distance of six to eight inches. Other details have been described in previous articles, and I would, therefore, limit my remarks to answering such criticisms as have come to my notice.

Does success attend its use in every instance? No more nor less than can be said of the other anesthetics. We estimate that in 95 per cent. an absolutely satisfactory anesthesia was obtained. This anesthesia sets in promptly, at intervals of a few seconds in infants to three minutes in adults, and the awakening is equally as prompt. During the narcosis the color is natural and there is tolerable relaxation of the muscles. The giving of the anesthetic is controlled by the same criteria that hold good for other anesthetics. Mention is made in one of my previous writings of a layer of "hoar frost," resulting from the combination of the vapor of the breath with the ethyl chlorid, which forms on the gauze. I have now learned to regard this rather as a favorable than a deterrent factor, provided the frost be not allowed to form in too thick a layer so as to intercept all access of air. This "hoar frost" constitutes a storage depot for much of the ethyl chlorid and thereby facilitates narcosis. If a mask so saturated with this layer of "hoar frost" be applied to one's own face as for purposes of inhalation, no chilling of the inspired air will be perceptible, but a decided odor of a very pleasant nature is appreciated, and if the application of the mask be persisted in a little longer a sense of dizziness overcomes one. No untoward experience has resulted from the inspiration of air chilled in its passage over the frost, since the vapor of ethyl chlorid is dispelled, expanded and warmed in the pharynx before being taken up in the lungs.

Most of the observers advise spraying the ethyl chlorid in the various devices employed, in great quantity at once. This is unnecessary and likely to be dangerous. Perfect safety and great economy are insured by spraying intermittently. To guard against an interruption of the anesthesia by temporary occlusion of the capillary opening in the vial, an additional tube should be kept at hand. The stream must at all times issue in full force, since a dribbling stream will be attended by failure.

Children and young adults constituted about 75 per cent. of the instances in which this anesthetic was applied, and it has been remarked that the brilliant results witnessed were obtainable with all anesthetics in children. This is not the case. In the first place, the onset of the anesthesia is more rapid than with the other agents, and then the hasty awakening and remaining so from an immediately preceding profound narcosis is peculiar to none of the other anesthetics. For ambulatory practice this feature is only rivaled by laughing gas. Relaxation of all muscles is manifested in the state of profound narcosis; it is seen at its best up to adolescence, thereafter more or less rigidity is at times encountered. This is more so apt to follow when the reflexes are heightened in the inflammatory conditions demanding operation. In old age this anesthetic again operates as in infants, thus a successful reduction of a dislocation of the shoulder of long standing was effected thereby in a woman 80 years of age. To overcome the objectionable rigidity, I have in a number of instances administered morphin sulphate, gr. ¼, as a preliminary. In proportion as the patient is addicted to alcohol, ethyl chlorid will cease to act favorably, wherefore in outspoken alcoholics a preliminary use of morphin hypodermically will insure a good anesthesia. Adults can be sufficiently anesthetized to do any minor operation of well-defined limits, but often at the expense of ethyl chlorid in large quantities.

Up to this point laughing gas is a strong competitor, but as cyanosis is never encountered with ethyl chlorid the latter takes the lead, also outstripping nitrous oxid on the score of portability and the cost of application. As the field of ethyl chlorid is only for minor operations, it must be pitted against nitrous oxid. The latter

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Surgery and Anatomy, and approved for publication by the Executive Committee: Drs. H. O. Walker, A. J. Ochsner and DeForest Willard.

1. Medical Record, April 6, 1901; Medical News, Aug. 3, 1901.

has the greatest record statistically for safety, its death rate being placed at 2 in 1,500,000.[2] For ethyl chlorid, I am able thus far, conjointly with my own 1,000 cases, to present you a record of 12,436 with but one bona fide proven death, forthwith to be narrated:[3]

A day laborer, 41 years of age, muscular, alcoholic, extensive ulcer of the leg. A transplantation operation was contemplated. Kelene narcosis for two minutes; extensive excitation; more kelene injected on the mask after three minutes. The blood being dark the mask was removed; cornea and pupil reflexes abolished; defensive motions with extremities; rigidity of the jaws; spasmodic breathing; cyanosis. Pulse was perceptible but not countable owing to the rigidity of the muscles; then followed an intermission of the pulse and death. The succession of events was instantaneous, the whole interval of time comprising three minutes. Five grains of ethyl chlorid were used. Artificial respiration was kept up one hour, camphorated oil injections were used, patient placed in the Trendelenburg position, cardiac massage, galvanism of the phrenics, all of no avail.

Postmortem.—Eccentric hypertrophy of the heart; fatty degeneration of the cardiac muscle; extensive arteriosclerosis of the coronary arteries; sclerosis of the aorta in moderate degree. Blood in the heart and veins of a cherry-red color, fluid, but not coagulated. The blood recalls poisoning by coal gas. No ecchymosis in the pericardium or pleura; no edema of the lungs. The absence of ecchymosis is noteworthy, hence no asphyxia can be charged. Extensive arteriosclerosis of the coronary arteries was assigned as the cause of death.

Lotheisen advises using but three grams at once and then to spray one gram of ethyl chlorid per minute until two grams are given. If marked excitation and cyanosis occur they demand the removal of the mask.

The details of another published death[4] wrongly attributed to ethyl chlorid, I must needs bring to your notice. The consultant physician's statement is as follows:

A female, 55 years of age, kypho-scoliotic, came for the extraction of lower molars to her dentist. She was at times subject to cardiac derangement and within the year had suffered from a fracture of the rib and later from an attack of left hemiplegia. I had not seen her for one year until the message came that the patient was unconscious after a tooth extraction. I found the patient unconscious, automatic reflexes, absent corneal reflex, pupils contracted, jaw hanging, tongue not retracted, but limp; respiration intermittent, at intervals of two to three seconds two or three respirations, and at times deep sighs; expiration very slight; then another interval followed by the same type of respiration. Pulse 84, regular. The heart sounds clear; lungs free from disturbance; temperature 36.2 C. Color of the skin not blue, rather bright red cheeks. No odor emitted from the mouth; no vomiting; no incontinence. Flagellation and all else does not rouse her. Attempts at artificial respiration were of no avail; camphor and ether injections to the number of eight were ineffective.

The dentist's narrative reads thus:

The fear not unusual with a patient approaching the dentist's chair manifested itself in our patient. At 10 A. M., after drying the gums, moistening them with glycerin and guarding against the unnecessary inhalation of ethyl chlorid by covering the middle and index finger with a napkin and surrounding the lower teeth to be extracted, I sprayed the ethyl chlorid, at a distance of 35 cm., on the gums until they were blanched. Extraction required about twenty seconds, and two grams of ethyl chlorid were used. Following subsequent rinsing of the mouth, her head suddenly dropped, jaw sank, the face became pale and the eyes were dull and fixed. The pulse was weak. I exercised traction on the tongue, practiced artificial respiration, and provided for the access of fresh air. All this I kept up until 3 p. m. Until 10 o'clock at night this collapsed condition continued, the pulse gradually weakened and accelerated up to 110; the respirations were 24. At 2:30 the next morning death set in. This was no asphyxia, but a suspension of consciousness and then a paralysis of respiration; finally terminating in cardiac paralysis. After the use of ethyl chlorid narcosis promptly set in, and so quickly were the cerebral functions in abeyance that the cortical centers and medulla became paralyzed. After fourteen hours death supervened.

This case of death attendant on the use of ethyl chlorid I can not let pass unchallenged. In the first place, ethyl chlorid was not used as advocated for narcosis. It was sprayed into the oral cavity in concentration. In the second place, the patient had one year ago experienced an apoplectic stroke, she was scoliotic and had compensatory changes traceable to cardiac insufficiency. Syncope set in immediately following the extraction. Similar phenomena are experienced in the first stages of chloroform and ether operations, particularly in operations conducted about the head and neck. Death under such circumstances has always been put down to reflex inhibitory action on the heart exerted through the vagi. In this fatal case of Seitz' death did not set in until fourteen hours later. Ethyl chlorid is too fugacious and too quickly eliminated to act thus long upon the system. From the vivid word picture of the patient's condition (note the description of Cheyne-Stokes' respiration) it is not far fetched to gain the impression of a possible apoplectic stroke perhaps due to embolism from the heart. Finally, the cause of death was not proven postmortem.

In Kocher's clinic there is mention, *en passant*, of a death under ethyl chlorid, but with no further detail whatsoever. It has subsequently been learned that in this instance the ethyl chlorid was not pure and not properly applied.

If these three deaths be unqualifiedly accepted, the mortality in the use of ethyl chlorid for narcosis approaches that of chloroform; if not, it stands between that of ether and gas. But we must be mindful that were all ether and chloroform deaths unstintedly reported we should have a higher mortality.

Symptoms bordering on fatality I have in my series encountered six times. In each instance they were those of respiratory interference and they occurred as the outcome of neglect of attention to the retro-placed tongue during the stage of profound narcosis, or a disregard of sufficient admixture of air. The fact that all of these patients recovered under artificial respiration speaks very favorably for ethyl chlorid. Thus Schleich[5] found when he profoundly narcotized rabbits up to the point of respiratory paralysis with ether, chloroform and ethyl chlorid respectively, the animals succumbed to the former two, but were capable of resuscitation by artificial respiration when asphyxiated with ethyl chlorid. I have seen respiration in no wise adversely influenced, but if patients withhold from a free and easy respiration the ethyl chlorid will evaporate and not act as quickly. Such subjects as become deeply anesthetized breathe stertorously. Salivation I have never encountered.

Fritz König[6] in animal experiments conducted on rabbits and monkeys, noted that in rabbits the respiration was accelerated and at times spasmodic. This was due to irritation of the respiratory center. In monkeys, however, this was wholly absent, and compared with ether given to apes, ethyl chlorid is far less dangerous.

3. Lotheisen—Muench. Med. Woch., 1900, No. 18, p. 601.
2. Dr. Charles M. Buchanan. Medical News, vol. lxii, April, 1893.
4. J. Seitz: Chlorethyl Tod. Corresp.bl. Schw. Aerzte, Yahrg. xxxi, 1901, No. 4, p. 97.
5. Schmerzlose Operationen. Berlin, 1894, p. 43.
6. Ueber Athylchlorid Narkose. Inaugural Dissertation. Bern, 1900.

These advantages claimed for ethyl chlorid obtain only when a due admixture of air is provided for. I have used ethyl chlorid with the labored respiration accompanying operations for empyema in three instances and I can pronounce it an ideal agent for this purpose. In retropharyngeal abscess with difficult respiration, it has also admirably stood the test in some twenty instances.

Some of the unpleasant experiences recounted were traceable to infants in whom we could subsequently make out the existence of the status lymphaticus (enlarged tonsils, enlarged adenoids and retropharyngeal lymph glands). We must not, however, jump at the conclusion that ethyl chlorid should not be used, therefore, in operations for adenoids, since the presence of the status lymphaticus once assumed would forbid the use of any anesthetic. Those who operate adenoids quickly and who would take advantage of the expiratory efforts in the awakening to expel the blood, will see the advantage of this over nitrous oxid anesthesia with its invariably accompanying cyanosis and rigid jaw, and its superiority over a primary superficial narcosis with ether with its drawbacks of persistence of odor and prolonged nausea.

Even when given on an empty stomach, ethyl chlorid in a very small number of cases produces vomiting and nausea, but these are of the briefest duration when they do occur. Twitching and convulsive movements I have occasionally noticed during the anesthesia. Under these circumstances one must proceed cautiously in pushing the anesthesia. Of course these interfere with the finer manipulations of an elaborate operation; thus, decision of a cataract was performed with difficulty by a colleague owing to the rotary nystagmus of the eyeballs, though the anesthesia was perfect in every other respect.

A very few times the awakening has been accompanied by an excitement bordering on slight delirium, but of a very evanescent character. As a rule, it is phenomenal to witness time after time how naturally the patients come to and put questions. As for infants and children, the prompt and lusty cry after a previous profound narcosis is a source of great rejoicing to the parents, who welcome this sound with the same intense anxiety that they do the first cry of the new-born.

The pulse was always slightly accelerated with no alteration of its tension.

Very trustworthy and valuable experiments are again reported by Fritz König (loc. cit.) as to the influence of ethyl chlorid on blood pressure. He tested it on four rabbits and four monkeys, having provided for a free access of the proper amount of air by the employment of artificial respiration. His conclusions are as follows:

1. Ethyl chlorid administered with a due admixture of air effects no diminution of the arterial pressure, yet the narcosis is complete.

2. In individual instances there is a fall of blood pressure, due to vagus irritation. After section of the vagi the blood pressure rises and remains at its height throughout the narcosis.

3. When no due admixture of air is provided for, a lethal depression of the blood pressure and coincident respiratory paralysis follow. This holds good merely for the rabbit, the monkeys being far more resistant.

To effect a primary narcosis prior to the administration of ether or chloroform, ethyl chlorid is applicable in a like manner as laughing gas. It does not in the least act antagonistically or unfavorably towards accomplishing this.

As to the length of time during which it is applicable I see no reason why, if it operates well for fifteen minutes, it should not hold good for a greater length of time, in proof of which I can attest to its efficiency, having used it in an infant of 8 months for fifty minutes, the operation being for strangulated hernia; in a young lady of 18 for forty minutes in an operation for ganglia of the wrist, and in a woman of 75 for amputation of the metacarpal phalangeal articulation for tubercular arthritis, during a period of forty-five minutes. The item of expense strongly militates against its use in prolonged operations, as does also the readiness with which patients enliven and become rigid as soon as one desists in the administration because of the existing profound narcosis.

The present standpoint of ethyl chlorid narcosis may thus be summarized:

It is relatively a safe anesthetic.

Its danger point is not as readily nor as suddenly reached as in chloroform, nor does it carry with it the remoter dangers of ether.

Asphyxia when encountered is easily remedied by artificial respiration.

Proficiency in the giving of ethyl chlorid requires experience akin to that in the use of other anesthetics. The speedy onset of the anesthesia and the prompt recovery from it stamp it as ideal for ambulatory practice where it must in time usurp the preëminence of laughing gas. No physician of experience can say the least thing derogatory to the safety of laughing gas with its record of two deaths in 500,000 (?), but if you ask the physician wherefore he does not practice what is gospel in regard to laughing gas, the invariable reply is that even at its best the apparatus is too cumbersome and expensive and beyond control to estimate the quantity of gas at hand; furthermore, he will tell you the patients are always cyanotic and rigid. All these objections are at once overcome with ethyl chlorid. Surely, if every dentist is ready to use laughing gas to spare his patients pain in extraction with a minimum of unpleasant after-effects, why should not this be the attitude of the humane physician whenever he has recourse to the knife for the various acute and painful surgical affections.

In the mortality statistics given for nitrous oxid[7] cognizance is taken of all the dental administrations. Were we also to include these, we should be able to say, not that the present mortality were 1 in 12,476 for ethyl chlorid, but 1 in 15,000 approximately. Again, the deaths from all causes to date under nitrous oxid are put down at 30 (loc. cit.); of these nearly one-half occurred within the last ten years, whereas that same number did not take place within three decades preceding. We offer this criticism not in any hostile spirit towards nitrous oxid, but merely to emphasize once more how cautious and reserved we must be in our attitude in estimating mortality statistics for a given anesthetic.

I submit these data, trusting that they will be sufficient to guide in giving ethyl chlorid a fair trial as a general anesthetic, so that it in due time may occupy a conspicuous place among the anesthetics.

7. Anesthetics and Their Administration, by Frederick W. Hewitt, p. 228, Second Edition.

To Preserve Rubber.—Ten to twelve parts of water and one part of ammonia will preserve soft rubber any length of time. Dip rubber pipes, etc., in a glass jar filled with this solution. Use for your ammonia bottle a rubber stopper; it is better than a glass stopper.—*Toledo Med. and Surg. Reporter.*

THE SUBARACHNOID INJECTION OF COCAIN FOR OPERATIONS ON THE UPPER PART OF THE BODY.*

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SAN FRANCISCO.

The use of cocain by the subarachnoid method was demonstrated by J. Leonard Corning of New York in 1884, later by Bier, Tuffier and others. During the past year it has been tried by most of the surgeons in the country for operations below the diaphragm, and by many of them discarded on account of objections of various kinds. It has been used in a few thousand cases, but not enough to establish its safety, as compared with the general anesthetics. Its analgesic properties can not be doubted for operations in the lower extremities.

I have found that the analgesia can be extended for operations in the upper part of the body. In the transactions of the State Medical Society of California, in April, 1901, I reported eight cases where I had extended the analgesia over the entire body.

I have now used this method 673 times without a failure of analgesia, and 60 of the cases were above the diaphragm. I have only found it necessary to give a general anesthetic once after the patient had been injected, and that was in a very nervous lady that I had injected with the pretention to make an examination and then administer an anesthetic before operating; I had curetted, and opened the abdomen to remove pus tubes before she realized I was operating, then she became alarmed, and it was necessary to give a little anesthetic to quiet her, still she admitted there was no pain. The patients have varied in age from eight to eighty-six years. Many of these operations have been on patients who have been in such condition from disease, or age, that it was not considered advisable to administer a general anesthetic. The operations have extended over all parts of the body. There has been only one fatality that could in any way be attributed to its use, and that I think could hardly be attributed to it from the condition of the patient, and the postmortem findings which will be found in the histories.

The advantage of this form of analgesia can readily be appreciated by any one who has observed the appearance of a patient during the time, and after he has passed through a serious operation under a general anesthetic; it not only takes time for the patient to regain consciousness, but there is a debilitated condition brought about by the effect of the anesthetic on the blood, the shock, and often the prolonged vomiting, as well as the operation, all of which tends to weaken the vitality of the patient, and invite the many complications, which too often follow a general anesthesia.

Under cocain analgesia with the most serious operations, we observe a patient conscious, bright, cheerful, hopeful, and every faculty in perfect control, able to converse, and take food and stimulants, and even to assist the surgeon if necessary. The after-disturbances, such as prolonged vomiting, suppression of urine, and bronchitis, seldom occur.

This form of analgesia can be used where a general anesthetic is contra-indicated, on account of diseased heart, lungs or kidneys. It can be used for operations in the localities where it is extra hazardous to administer a general anesthetic, on account of blood entering the larynx, as in excision of the tongue, or where there is danger of involving a nerve in a ligature, as the recurrent laryngeal in removal of the thyroid gland. The great advantage to be gained in using this method in operations about the buccal cavity, can hardly be appreciated until tried.

Chemically pure cocain hydrochlorate is sterilized by exposing the crystals to dry heat 300 F. for fifteen minutes, then inclose in sterile tubes, or sealed envelopes, in proper doses until time of use. The dose varies from 0.3, 0.4 or 0.5 of a grain, depending on the locality, whether in the lower extremities, trunk, or head. This is the maximum dose for a strong person; young or old persons will take a smaller dose.

I use the Lures syringe, which has a glass piston, and graduated barrel, and is readily sterilized, and always in working order. The needle is made of steel wire tubing No. 19 gauge, and three inches long; the bevel is short, with the concave portion of it dulled, to prevent cutting plug of skin and obstructing needle. The needle is kept in a saturated solution of carbonate of sodium to prevent rusting.

The patient is placed in the reclining position on either side, with body curved forward, to separate the spinous processes; the spinous process of the fourth lumbar vertebra is located by being on an imaginary line connecting the crest of the ilium. The space just between the third or fourth lumbar vertebra is frozen with ethyl chlorid, after being thoroughly cleansed. The needle is introduced just beneath the spine in the median line, with the point of it directed upward, and introduced until it meets with diminished resistance, or fluid passes. Should the needle be obstructed, it can be opened by having the patient cough, using stylet, or making suction with syringe attached, at which time a drop of cerebrospinal fluid will pass. Then place the finger over the end of the needle and connect the syringe, which has 0.3 of a grain of cocain in it, with piston closed, and gradually withdraw the piston, until the syringe is half filled with cerebrospinal fluid, which readily dissolves the cocain; then gradually return the solution into the space, by pressing the piston.

Should the analgesia be desired in the upper extremities, introduce the needle in the third space, and use the same method as above, except the dose should be 0.4 to 0.5 of a grain of cocain, and introduce as rapidly as the piston of the syringe can be pressed, then withdraw the needle and seal with collodion.

The analgesia will be complete for operations in the lower extremities in from three to five minutes, and for operations in the upper part of the body, in from fifteen to twenty-five minutes; the analgesia lasts from one to three hours, and I have seen it last five hours.

I have seldom found it necessary to repeat the injections for prolonged operations, or incomplete analgesia, but should it be necessary, I see no objection to repeating the dose.

The action of such a small amount of cocain to produce profound analgesia has caused considerable discussion. I am of the opinion that it acts locally by coming directly in contact with the roots of the nerves, and it has a special affinity on the fibers which carry the sensation of pain.

The patient will occasionally complain of cramps in the limbs, or a warm sensation over the entire body, rapid pulse, perspiring, nausea, vomiting, involuntary

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evacuation of the bowels during the early part of the analgesia, headache and chills after it. The vomiting occurs in about every eighth case, and usually comes on in about ten or fifteen minutes after the injection, and lasts only a few minutes; it is very seldom that it occurs after the operation. We often have a rapid pulse during the operation, especially if the patient is excited or nauseated. The rapid pulse is generally associated with the nausea, but there is sometimes a condition of depression which is evidently a form of shock due to some disturbance of the centers brought about by the injection, but I have never seen it very alarming, except in one case where I withdrew considerable cerebrospinal fluid for analysis.[1] The much dreaded headache will seldom if ever occur if the cocain is dissolved in the fluid, and none of the cerebrospinal fluid wasted. In dissolving the cocain in the cerebrospinal fluid, we not only disturb the parts less by placing a less amount of foreign element in the canal, but the fluid is kept at the same temperature, and is not in any way disturbed by diminishing or increasing the amount of fluid in the cerebrospinal space. If this is carried out you will seldom find headache. I have observed nine chills during the first few days after the operation; in some of them I was unable to find any cause for the disturbance, except it be this method of analgesia; there was no serious condition as a result.

Among the following operations many of the patients had two or more operations, only the most important one is mentioned.

Abdominal sections	63
Herniotomy for inguinal hernia	79
Herniotomy for umbilical hernia	2
Hysterectomy	2
Operations for fractures, lower extremities	34
Operations for relief of flatfoot	1
Suturing fractured patella	2
Amputation of breast	2
Suprapubic cystotomy	4
Internal urethrotomy	6
External urethrotomy	11
Repair of injury to muscles of arm	2
Operation for relief of enlarged prostate	3
Operation for hydrocele	10
Operation for varicocele	19
Circumcision	16
Plastic for contracture of hand	1
Lengthening of tendons for contractures	11
Stretching sciatic nerve	5
Operations for osteomyelitis	5
Operations for anal fistula	29
Removal of hemorrhoids	38
Gynecological operations	19
Excision varicose veins of legs	37
Incision cellulitis	28
Orchidotomy	7
Resection ribs	3
Amputation of leg, foot and toes	18
Vasectomy	2
Skin grafting	43
Bone grafting	5
Excision of tumors	16
Abscess ischiorectal	11
Retained testicle	2
Parturition	12
Removing sequestrum	20
Cauterizing back	2
Incision of knee joint	3
Wiring or setting fractured bones of arm	4
Examination fractures	4
Excision carcinoma back	5
Psoas abscess	4
Resection hip joint	3
Vaginal fixation uterus	4
Segregation urine	4
Amputation of penis	1
Amputation of hip joint	2
Abscess liver	2
Scrotal abscess	4
Cystoscope examination	3
Reducing dislocation femur	3
Reducing shoulder dislocation	2
Excision carcinoma rectum	1
Amputation arm and fingers	5
Excision tongue	4
Infraorbital neuralgia	1
Excision inferior maxillary	3
Excision superior maxillary	1
Thyroidectomy	2
Separating sterno mastoid	1
Tumor face	7
Trephining skull	1
Trephining antrum of superior maxillary	2
Trephining mastoid abscess	2
Tonsillotomy for carcinoma	1
Plastic on face	12
Enucleation of eye	4
Excision tubercular glands	8
Total	673

1. American Medicine, Aug. 3, 1901.

CASE 1.—Mr. J. K., aged 39. Fracture of olecranon. Injected 0.4 cocain between the first and second lumbar vertebræ; analgesia complete in five minutes; pulse varied from 86 to 104; respiration 19 to 28; involuntary passage during the operation. Made an incision and wired the olecranon. During the operation the patient would grit his teeth, but expressed himself as free from pain.

CASE 2.—Mr. Wm. D. C., aged 55. Tumor of arm. Injected 0.4 gr. cocain into third lumbar space with force; analgesia complete to arms in five minutes; pulse varied from 90 to 100; resp. normal. Muscular tumor removed from arm.

CASE 3.—Mr. D. C., aged 67. Empyema of right side. Injected 0.4 gr. cocain into third space with force; analgesia complete to the axillary space in three minutes. Three ribs resected. Pulse varied from 98 to 114; resp. 20 to 24. Otherwise normal; some nausea.

CASE 4.—A. W. S., aged 49. Phlegmon of right hand. Injected 0.4 cocain into the second lumbar space, with much force; analgesia complete over the entire body in ten minutes; pulse varied from 80 to 94 after injection, 108 before injection from nervous excitement. Free incision in the palm and dorsal surface of hand; patient vomited.

CASE 5.—Mr. L., aged 60. Carcinoma sacrum and lower lip. Injected 0.4 gr. cocain into third lumbar space with force; analgesia complete over entire body in three minutes; pulse before injection 108, varied from 108 to 118, respiration normal. Carcinoma removed from sacrum and lower lip; operation lasted one hour and a half.

CASE 6.—Mr. J. B., aged 72. Chronic ulcer of leg and carcinoma on neck between shoulders. Injected 0.4 gr. cocain into third space with force; pulse varied from 75 to 94, resp. 13 to 20; no nausea or vomiting. Operation performed on back half an hour after injection.

CASE 7.—Mr. A. G., aged 41. Muscles torn from inner condyle of left arm. Injected 0.4 gr. cocain into third lumbar space; analgesia complete in five minutes; pulse varied from 80 to 114. Party was drunk and complained some during the operation, but seemed to be analgesic.

CASE 8.—Mr. F. O., aged 24. Tubercular glands of neck. Injected 0.4 gr. cocain into third lumbar space with force; pulse and respiration remained normal. Removed glands. Patient complained a little from pressure of retractors; pulse and respiration normal.

CASE 9.—Mr. R. K., aged 15. Mastoid abscess. Injected 0.4 gr. cocain into third lumbar space, then removed to ward, and was operated on by Dr. Payne. Mastoid opened free of pain; pulse and respiration normal. Two hours after operation boy was found walking in the ward with other patients, as though nothing had happened.

CASE 10.—Mr. A. L., aged 53. Abscess antrum, superior maxillary bone, left side, also general atheroma. Pulse before injection 92, respiration 20. Injected 0.4 gr. cocain into third lumbar space; after waiting twenty minutes, analgesia not complete about the face, then injected 0.1 gr. more; analgesia perfect as soon as injection was completed. Opened left antrum superior maxillary. Pulse varied from 80 to 110, respiration normal; slight vomiting ten minutes after injection.

CASE 11.—Mr. F. O. N., aged 43. Epithelioma of lower lip. Injected 0.5 gr. cocain into third space with force; analgesia complete in fifteen minutes; slight emesis thirty minutes after injection; pulse varied from 87 to 110; respiration normal. The entire lower lip removed, also glands of the neck, and lip was restored by plastic operation. Operation lasted two hours.

CASE 12.—Mr. J. G., aged 47. Fracture of seventh rib and perforation of lung. Injected 0.4 gr. cocain into third lumbar space, elevated and resected the ends of the ribs. Free from pain. Pulse varied from 100 to 110; respiration normal. Patient vomited after injection.

Case 13.—Mr. H., aged 36. Gangrene of large toe and sebaceous cyst of scalp, size of hen's egg. Injected 0.5 gr. cocain into third space with force, analgesia complete, pulse and respiration normal. Toe was amputated three minutes after injection, and thirty minutes later cyst was removed.

Case 14.—Mr. W. L., aged 42. Phlegmon of hand. Injected 0.5 gr. cocain into third lumbar space; analgesia complete in three minutes; pulse before injection 102, during operation it varied from 70 to 120, respiration 24 to 26.

Case 15.—Mr. D. C. Empyema of left side. Injected 0.4 gr. cocain into third lumbar space; analgesia complete in three minutes. Resected a part of three ribs. Pulse before injection 98, and during operation 98 to 116; respiration 20 to 24. Patient was slightly nauseated.

Case 16.—Mr. J. McD., aged 51. Carcinoma of both tonsils and soft palate. Injected 0.5 gr. cocain into third lumbar space with force; analgesia complete in ten minutes. Made free incision of each side of neck, and on the right side removed tonsil through the incision; the other tonsil and soft palate was removed, then cauterized the posterior space. Pulse varied from 80 to 100; respiration 20 to 24; analgesia was profound.

Case 17.—Mr. M. J., aged 64. Carcinoma of lower eyelid and eye. Injected 0.5 gr. cocain into third lumbar space with force; analgesia over body in twenty-five minutes; patient complained a little at first incision, but did not flinch as the optic nerve was separated; slightly nauseated; pulse and respiration remained normal; operation performed by Dr. Dameron.

Case 8.—Mr. K., aged 78. Carcinoma involving the upper eyelid; patient very feeble for years. Injected 0.5 gr. cocain into third space; analgesia complete in twenty minutes. Dr. Powell removed the upper lid and restored the parts by a plastic operation, and during the same time I removed a large lipoma from the left thigh. Patient talked and had no unpleasant symptoms; pulse dropped to 50, but soon returned to 65, which was normal.

Case 19.—Mr. M., aged 54. Dislocation left shoulder. Injected 0.4 gr. cocain into third lumbar space; analgesia complete in fifteen minutes. Reduced dislocation; pulse and respiration remained normal.

Case 20.—Mrs. H., aged 83. Carcinoma of left eye, patient very feeble. Injected 0.4 gr. cocain into third lumbar space; analgesia complete in twenty-five minutes; pulse varied from 70 to 100; respiration, 20 to 24; patient vomited before operation commenced. Dr. Payne enucleated the eye and performed a plastic operation on lower lid.

Case 21.—Mr. E., aged 36. Mastoiditis. Injected 0.4 gr. cocain into third lumbar space; analgesia complete in thirty minutes; patient nauseated; pulse varied from 72 to 104; respiration 20 to 22. Mastoid opened and curetted.

Case 22.—Mr. Mc, aged 30. Sarcoma of tongue. Injected 0.5 gr. cocain into third space; analgesia complete in twenty-five minutes; patient struggled a little at first, as blood passed into the back part of the mouth, but after the blood was removed patient kept quiet. The tongue was removed through the mouth, and there was considerable hemorrhage. Pulse before operation 100, during the operation pulse was 130, but remained about 110; respiration from 20 to 26. Later the growth returned on the base of the tongue and tonsil. Injected 0.5 gr. cocain; analgesia complete in twenty-five minutes. The glands were removed from each side of the neck, parotid, submaxillary, both tonsils and base of the tongue. The pulse before operation was 104, during operation pulse varied from 112 to 140; respiration 22 to 26. The operation lasted two hours, during which time the man showed no signs of pain. At close of operation the man thanked the operator, Dr. Kenyon, by nodding; the patient was up in a few days, but the growth soon returned.

Case 23.—Mrs. E. Carcinoma of breast, and very feeble with mitral regurgitation. Injected 0.4 gr. cocain into third lumbar space; analgesia complete in ten minutes; patient vomited; pulse rate varied from 90 to 115, and very feeble during operation. Used hypodermic stimulations. The breast was removed without pain.

Case 24.—Mr. P. C. R., aged 45. Infraorbital neuralgia, of a severe type. Injected 0.4 gr. cocain into third lumbar space, the entire body analgesic in twenty minutes; pulse and respiration remained normal. The patient found only temporary relief.

Case 25.—Mr. A. M., aged 43. Osteoma in the orbital cavity, which caused the eyeball to bulge. Injected 0.5 gr. cocain into third lumbar space; analgesia complete in twenty minutes. Free incision made above the eye through the upper lid; the eyeball was pushed downward and forward and growth removed. Everything remained normal, and the patient constantly expressed himself as feeling all right. Operation by Dr. Schloss.

Case 26.—Miss C. C., aged 16. Deflected septum and exostosis. Injected 0.4 gr. cocain into third lumbar space; analgesia complete in twenty minutes; patient vomited, pulse rate varied from 80 to 100, respiration 20 to 22. Patient complained a little of pain during the operation. Operation by Dr. Schloss.

Case 27.—Mr. B., aged 48. Injury to hand, fingers of hand in complete extension. Injected 0.5 gr. cocain into third lumbar space; analgesia complete in fifteen minutes; pulse varied from 72 to 102; respiration normal. The extensor tendons were cut and ankylosis broken down. Patient vomited before operation.

Case 28.—Mr. H. A., aged 58. Injury to left arm. Injected 0.4 cocain into third lumbar space; analgesia complete in seven minutes. Muscles stitched and parts grafted. Pulse and respiration remained normal.

Case 29.—Mr. W. H., aged 48. Carcinoma of lower lip. Injected 0.5 gr. of cocain into third lumbar space; analgesia complete in twenty minutes. Removed the lower lip and restored the parts by a plastic operation. Pulse before injection 104, varied during operation from 104 to 119; respiration 20 to 24.

Case 30.—Mr. A. L., aged 52 years. Carcinoma superior maxillary bone of left side. Injected 0.4 of cocain in third lumbar space, and at the end of twenty minutes did not show profound analgesia. Injected 0.2 gr. more into third lumbar space; analgesia immediately after second injection. Removed the left superior maxillary bone and alveolar border of right side. Pulse varied from 70 to 100; respiration 20 to 24; patient nauseated; gave hypodermic strychnin during operation. Recovery was uninterrupted. Patient died eight months later.

Case 31.—Mr. F. C., aged 42. Epithelioma of lip. Injected 0.4 gr. cocain into third lumbar space, with force; analgesia complete in twenty-five minutes; pulse varied from 76 to 104; respiration 20 to 23; vomited. Removed the glands from the neck and the whole side of the lower lip, which was restored by plastic operation.

Case 32.—Mr. J. W. H., aged 26. Carcinoma of left breast. Injected 0.5 gr. cocain into third lumbar space; analgesia complete in twenty-five minutes; pulse varied from 78 to 98; respiration 20 to 25. Removed the breast and axillary glands.

Case 33.—Mr. A., aged 51. Empyema of antrum left side. Injected 0.4 gr. cocain into third lumbar space, with force; analgesia complete in twenty minutes. Opened and drained antrum of superior maxillary. Pulse and respiration remained about normal.

Case 34.—Mr. J. B., aged 52. Carcinoma of tongue, tonsils and glands of the neck; the base of the mouth had broken through, and the tongue was so much enlarged that the patient could not swallow. Injected 0.5 gr. cocain into third lumbar space, with force; analgesia complete in twenty-five minutes; pulse varied from 112 to 120; respiration 22 to 26. Removed the tongue through the base of the mouth, and opened the neck and drained. After the operation patient was fed with stomach tube. Died ten days after the operation, from his emaciated condition.

Case 35.—Mr. F. H., aged 31. Ununited fracture of right humerus. Injected 0.5 gr. cocain into third lumbar space; analgesia complete in twenty minutes; pulse varied from 80 to 124; respiration 20 to 27. Wired the bones.

CASE 36.—Mr. J. D., aged 53. Carcinoma of tonsils and inferior maxillary of right side. Injected 0.5 gr. cocain into third lumbar space; patient vomited before operation; analgesia complete in fifteen minutes. Removed one-third of the inferior maxillary bone, both tonsils, glands of the neck, and cauterized the posterior nasal space with a Paquelin cautery. Pulse varied from 100 to 128, being the highest while working in the deep structures of the neck. Respiration 18 to 28.

CASE 37.—Mr. J. B. M., aged 63. Carcinoma of right inferior maxillary and tonsil. Injected 0.5 gr. cocain into third lumbar space; analgesia complete in twenty minutes. Removed part of the inferior maxillary bone, both tonsils, and glands of the neck. Patient walked to carriage, and rode home some two hours after operation.

CASE 38.—Miss S., aged 27. Exophthalmic goiter, size of hens egg, with very rapid pulse, and a general weakened condition of the system. Pulse before operation varied from 120 to 130, respiration 22 to 26. Injected 0.5 gr. cocain into third lumbar space, with force; analgesia complete in twenty-five minutes. Removed right gland through a curved incision. During operation I made certain not to include the recurrent laryngeal nerve in my ligature, by noticing the condition of the voice. The patient complained a little from tension, so that it was necessary to administer a little alcohol on the mask, which quieted her, as she thought we were administering chloroform. The operation lasted one hour, and patient made a rapid recovery.

CASE 39.—Mr. J. D., aged 52. Carcinoma of neck. Injected 0.4 gr. cocain into third lumbar space; analgesia complete in twenty minutes. Removed glands of the neck. Pulse varied from 72 to 100; patient vomited.

CASE 40.—Mr. M., aged 52. Trephining frontal antrum. Injected 0.4 gr. cocain into third lumbar space; analgesia complete in twenty-five minutes. Frontal antrum trephined. Patient complained very little; no vomiting or nausea.

CASE 41.—Mr. C., aged 63. Carcinoma of the tongue. Injected 0.4 gr. cocain into third lumbar space; analgesia complete in seven minutes. Removed the tongue and glands of the neck. The operation lasted two hours, no vomiting or any bad after-effects. Pulse varied from 72 to 104. In twenty-five minutes after operation started patient complained a little, but very little after first incision.

CASE 42.—Mr. W., aged 33 years. Subclavian aneurism, with paralysis of left arm. Injected 0.4 gr. cocain into third lumbar space; analgesia complete in twenty minutes. Amputated arm at shoulder joint. Patient made a rapid recovery.

CASE 43.—Mr. T. B., aged 72. Carcinoma on back. Injected 0.3 gr. cocain into third lumbar space; analgesia complete in twenty-five minutes. Carcinoma removed.

CASE 44.—Mr. A., aged 42. Trephined antrum of superior maxillary. Injected 0.4 gr. cocain into third lumbar space; analgesia complete in twenty minutes; pulse varied from 70 to 80; little nausea. Trephined antrum.

CASE 45.—Mr. W., aged 52. Trephining depressed fracture. Injected 0.4 gr. cocain into third lumbar space; analgesia complete in fifteen minutes. Opened scalp over right side, and elevated a depressed fracture, size of silver dollar. Patient was nauseated.

CASE 46.—Spanish boot-black, aged 24. Fibroma of superior maxillary. Injected 0.5 gr. cocain into third lumbar space; analgesia complete in twenty-five minutes. Patient was frightened and complained a little as incision was made in skin, otherwise little evidence of pain.

CASE 47.—Mr. ——, aged 7. Contracted sterno-mastoid; was severed twenty minutes after injecting 0.3 gr. cocain into third lumbar space.

CASE 48.—Mrs. B., Swedish, aged 54 years. Height 5 feet 1 inch, general weight 348 pounds. Had recently reduced weight by dieting to 318 pounds. Alcoholic subject, with a rheumatic history, and a pendulous abdomen, which was hanging over half way to the knees, in which was a constricted umbilical hernia. The heart sounds were very weak, with a mitral murmur, and pulse rate 120. There were symptoms of strangulation, and I was unable to reduce the hernia. The patient had been unable to take the reclining position for several days on account of her heart affection, and was in nearly a semi-comatose condition at the time of injection, from the strangulation. After consultation it was decided unwise to administer an anesthetic. Injected 15 m. of 2 per cent. solution of cocain into fourth lumbar space, made two oval incisions connecting on each side of the abdomen and removed 14 pounds of the pendulous abdomen, and then liberated and reduced the hernia, at which time she expired. The post-mortem was made in less than one hour after death. Pericardium was completely distended, 200 c.c. clear fluid; the heart cavities greatly distended by fluid blood; the heart was very much enlarged, and light in color; posterior segment of the tricuspid adherent to the wall of the ventricle, chordæ tendinæ contracted, forming fibrous tissue, which extended into the ventricles, showing evidence of old ulceration; mitral segment adherent to ventricle, through chordæ tendinæ, and filled with calcareous deposits in the margins. Atheroma of aorta.

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DISCUSSION

ON PAPERS OF DRS. WARE AND MORTON.

DR. DANIEL N. EISENDRATH, Chicago—When ethyl bromid and ethyl chlorid were first brought out they were given in too concentrated a form and were then dropped. The apparatus of Dr. Ware seems to solve the question and makes the anesthetic less dangerous. It is a good anesthetic for dispensary practice and German surgeons have used it a great deal for small operations. They have been very successful, the mortality being very small. This form of general anesthesia is better than the nitrous oxid, which has to be given very carefully to elderly patients, as the sudden increase of arterial pressure is likely to lead to serious results.

There is an element of medullary anesthesia which we are apt to forget and that is mental shock. I operated on a patient 80 years old, a week ago, but on account of his atheromatous heart I hesitated to give either ether or chloroform, and performed a laparotomy under local anesthesia. The cut through the skin gave very little pain. There was some rigidity of the abdominal muscles. From the moment I got into the abdominal cavity the element of mental shock played a great rôle. He could scarcely ever feel that I was touching the stomach, but the consciousness of a major operation being performed seemed to distress him very much. I am inclined to believe that this does more harm than even the general anesthetic would.

DR. C. E. THOMSON, Scranton—I think this is an appropriate time to report that in the institution with which I am connected we have lost two cases from chloroform anesthesia this year. Both cases were fractures of the lower jaw. In the first case the anesthetic was being given for a simple operation. Not more than a dram of chloroform had been used, when the patients suddenly stopped breathing and died. Since I left home this week, in a letter received last evening, my associate reports a second death from chloroform used in reducing a double fracture of the lower jaw. In this case he gave the anesthetic himself and the patient took but a few drops when he stopped breathing. The doctor did a tracheotomy and the patient gasped a few times and then died. I want to report these cases, which are to me interesting, as proving in this connection that local anesthetics are safer. We have used chloroform for fifteen years without a death, except the above.

DR. D. F. MONASH, Chicago—It is evident that ethyl chlorid as a general anesthetic must have a limited range of application, as it is employed only in minor operations of brief duration. Next to nitrous oxid gas it appears to be the safest and most rapid anesthetic we possess, and enjoys the advantage of a full return to consciousness immediately on the removal of the drug and produces no disagreeable after-effects. In the large experience of the essayist, chlorid of ethyl has proven a safe and practical anesthetic. The rapid induction of anesthesia, the speedy return to consciousness without apparent effect on pulse or respiration, without cyanosis, vertigo or nausea, and the simplicity of administration should popularize its use. For these reasons ethyl chlorid may have a field of special usefulness as a dispensary and office anesthetic. The discovery of the general anesthetic effect of ethyl chlorid, it is said, wa

made by a dentist who, in spraying it on a patient's gums, noticed the constitutional effect produced by its inhalation.

Dr. W. D. Haines, Cincinnati—I have long held that death from chloroform is occasionally due to the irritating influence of the fluid on the faucial mucous membrane of the patient. The administration of chloroform is frequently intrusted to a student who has had little or no experience in giving the drug and who, through lack of attention or knowledge, drops the chloroform on the mask too rapidly and the liquid begins to run over the patient's face; if the mouth be open some of the fluid may readily find its way to the throat of the patient, who ceases to breathe at once and defies all attempts at resuscitation. I drew this conclusion from my experience in sudden deaths from carbolic acid. Many of these cases die instantly just as do the chloroform cases, long before the physiologic effect of either drug could become operative. Therefore, I submit that death in such instances is not due to chloroform narcosis on the one hand or carbolic acid poisoning on the other, but is due to inhibition. The tendency of any irritant to the faucial mucous membrane is toward inhibition, from its influence on the filaments of the vagus which are so freely distributed to these parts. Hence it is well for the surgeon, when operating on these parts, applying caustics to them or in the administration of chloroform to remember the neck as one of the "privileged regions."

Dr. R. C. Coffey, Portland Ore.—I believe much more importance should be attached to the anesthetist than to the anesthetic. We have stopped having students anesthetize for us, and instead we have a salaried man, whom we consider a man of equal judgment and mental ability with the operator. The trouble in anesthesia is in the man who is giving it. Since we have commenced the employing of an experienced anesthetist, we have entirely forgotten the phrase, "This patient takes the anesthetic very badly." When we were employing inexperienced doctors or medical students, we were frequently stopped in the operation to use artificial respiration or to in some other way help the anesthetist. The point of importance in the giving of an anesthetic is for the anesthetist to know exactly "where his patient is." There are many minor points in the facial expression, in the circulation, in the eyes, which are of vital importance and tell the experienced anesthetist when his patient is getting on dangerous ground. An inexperienced anesthetist (and I mean in this class the man who never learns the meaning of small symptoms, even though he has had years of experience) can not tell the difference between the rapid heart, due to excitement, in the spasmodic stage, and the heart which is flagging from paralysis. Frequently we find this kind of an anesthetist using artificial respiration while the patient is still talking. In the small towns and country districts it is a very frequent thing for us to hear of several men in the neighborhood who have such strong constitutions that Dr. —— could not get them under the anesthetic at all. I think if there is a burning shame resting on surgeons to-day it is that they allow inexperienced physicians and medical students to do anesthesia, when it is in reality but little less important than the operation itself. If patients only knew the great danger they are in when they believe "that anyone can give the anesthetic," they would certainly be willing to pay any price for a man who has learned by study and experience the symptoms which indicate the position the patient occupies at all the stages of the operation as regards the anesthetic. As to the choice of general anesthetics, I think there is very little. The man who is accustomed to give chloroform will give chloroform with as much safety as the one who is accustomed to giving ether will give that anesthetic. Our anesthetist uses ether and by his method gets the patient under the anesthetic in from three to five minutes. During the past seven months, he has given for us more than four hundred anesthetics, and so far as I know the operator has not once been asked or found it necessary to stop his operating to look after the condition of his patient because of the anesthetic.

Dr. Ware, in closing—I think I have embodied all I have to say in my paper. It being a new subject, I hardly looked for extensive discussion. Like everything new it has to be tried first. I thought after I had given this anesthetic in 1,000 cases I was entitled to give my experience. I had always been a great admirer of laughing gas, having given it as many as 5,000 times or more without fatality. While demonstrating to a colleague who was anxious to see the method of its use, we gave a patient laughing gas and to my great surprise he narrowly escaped death. Anyone will meet with a death occasionally with every anesthetic, and herein we must consider the personal equation of the anesthetizer. If you want an anesthetic that will be free from any mortality I think you are certainly looking for an unknown quantity. With these phenomena of threatening death that occur so suddenly I have had the experience repeatedly that carefully executed artificial respiration instead of tracheotomy is the proper procedure. Dr. Crile has shown what a rôle the pneumogastric and its branches play in operative work about the neck. To eliminate these baneful influences wrongly attributed to chloroform, he blocks out reflexes by application of cocain to the pneumogastric and its branches as exposed.

Dr. Morton, in closing—The one great objection to this form of analgesia is that the patient remains perfectly conscious during the operation, which might interfere with a nervous person; this is perfectly true as we have been educated to believe that it is necessary to be unconscious during the performance of a capital operation. In some of those cases it will require a little tact and suggestion on the part of the surgeon to distract the patient's mind from the operation, and it may be necessary before performing the operation to blindfold the patient, and should you not wish him to understand what you are saying close his ears with cotton. By using this method of injecting the cocain directly into the cerebrospinal fluid, you will never have a failure of analgesia, as it is necessary to get the needle into proper space before you can dissolve the cocain. The crystals of cocain are readily sterilized by exposing to dry heat at a temperature of 300 F. for fifteen minutes, and they will keep indefinitely, and are always ready for use. The solution of cocain is very difficult to sterilize without boiling, and the analgesic properties will not stand boiling. It will soon become old and form products which are poisonous. This method of analgesia places less foreign matter in the subarachnoid space, which naturally makes less disturbance.

SYPHILIS OF THE LIVER.*

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Two notable contributions on the morbid anatomy of hepatic syphilis, the one by Adami[1] the other by Flexner,[2] render superfluous any review which I might make of this part of the question. Although the chief pathologic changes induced by syphilis of the liver appear to have been carefully studied and classified, the clinician occasionally meets with instances of undoubted syphilis in which there develop hepatic manifestations that so puzzle him as to the precise character of the morbid change that classification has to be abandoned. There is abundant literature of the classical expressions of the disease with which all recognized students substantially agree, and there are to be found many scattered reports of individual cases that are sufficiently rare to warrant description; but these are so commonly benefited by treatment that they either escape autopsy altogether or else are delayed until the specific effects of mercury or iodid have helped to conceal the exact steps of the morbid process. It is apparent that there is no fundamental difference between the pathology of congenital syphilis and that of the acquired disease. In either one we may have first: the diffuse hepatitis or parenchymatous degeneration to be succeeded by the ingrowth of fibroid tissue; these changes are probably due to the local

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2. New York Med. Jour., Jan. 18, 1902.

effect of the specific toxin rather than to local infection. Second, we have gummata occurring in large tumors, in scattered masses, in miliary granulomata, or in the budding stage, as mere aggregations of lymphoid cells; these lesions appear to be the outcome of stimulation of tissue from the local action of micro-organisms rather than intoxication. In some instances the liver is apparently invaded chiefly through the lymphatic system, not infrequently by the route of the peritoneal cavity, in which case the liver is often attacked at the periphery; and still other cases in which the disease manifests itself especially in the blood vessels, producing the most striking symptoms by obstructing some branches of the hepatic veins, as pointed out by Fagge; or by the obliteration of some of the portal branches or distribution of the hepatic artery.

Among the clinical manifestations excited by the changed structure of the organ (not overlooking the constitutional effects of the accompanying toxemia) are, first, increased bulk of the liver; second, deformity of its contour; third, roughening of the adhesions to its surfaces; fourth, obstruction of the bile passages, causing jaundice; fifth, obstruction of the blood passages, causing ascites; sixth, perihepatitis, causing friction, pain, tenderness and sometimes contraction of the liver; seventh, and rarely, an extraordinary enlargement of the liver, sometimes accompanied by perihepatitis, slight effusion, pain and tenderness, apparently the result of lymphatic obstruction. Disturbances in nutrition leading to emaciation and glycosuria is not uncommon, and almost invariably there is some albuminuria with presence of tube casts. In addition to these is the cachexia of syphilis, which belong no more to syphilis of the liver than to that of the other organs of the body.

The most mysterious changes of the liver that have come under my personal observation have been in a few rare cases of syphilitic disease expending its force for the most part on the lymphatic system. I do not refer to the ordinary cases of perihepatitis, with pain, friction, moderate increase in hepatic bulk, perhaps to be followed by contraction, and not infrequently extending along the capsule of Glisson and invading deeper structure of the organ. Such cases are sufficiently familiar. I refer rather to a class of cases, one of which I saw years ago when a hospital interne, in which there had been evidence of serious involvement of the deep abdominal lymphatics. There was a low-grade peritonitis, and probably the disease was at the same time active in the retro-peritoneal lymph nodes. Throughout the abdomen, widely diffused, could be distinctly felt resisting masses tender to the touch. There were also apparently periphepatitis and a slight accumulation of ascitic fluid. The liver already enlarged, extending slightly below the free border of the ribs, somewhat suddenly began increasing in bulk and, within a fortnight, had reached a point midway between the umbilicus and the pubis. Its border was smooth, rounded, without any irregularities, and was tender on pressure. This was the largest liver which has come under my observation. Under treatment by potassium iodid in large doses and inunctions with mercurial ointment, improvement rapidly occurred and within a month the liver had returned almost to its normal size and the patient was restored to a reasonable state of health. There was no jaundice, but, as stated, moderate ascites; this, however, probably depended on the accompanying peritoneal lymphatic involvement rather than on the liver. The digestion was disturbed, the patient suffered from pain and there was considerable elevation of temperature. I have never been able satisfactorily to account for this process—the sudden and very great enlargement of the liver and its subsequent restoration by specific treatment within an incredibly short time is something that has never been sufficiently explained, so far as I know, by the pathologist.

I have since had the opportunity of studying an almost identical case. This condition does not seem like the pericellular cirrhosis with parenchymatous degeneration, resulting from the intoxication (either of infections or poisons) such as has been described by Aufrecht, for the reason that under treatment the liver rather promptly returns to a state of reasonable competency. Taking into consideration the fact that the lymphatic system was in both these cases markedly involved, and recalling that the lymph glands when thus affected show infiltration with round cells, it has seemed to me probable that a similar process was taking place in the intercellular and interlobular lymph spaces of the liver. Be the cause what it may, the hepatic enlargement seems to be unquestionably purely specific. Besides the increase in bulk there was pain and tenderness, at times very severe, not only in the region of the liver, but in other parts of the abdomen. In congenital syphilis it is known that the liver occasionally reaches a great size, a change that has been shown to depend on pericellular cirrhosis associated with parenchymatous degeneration, but in these instances death usually results within a few weeks. Because of the presence of pain and tenderness the question of perihepatitis naturally arises. It is highly probable that there was perihepatitis present, although a friction was at no time heard; but the case was quite unlike the ordinary instances of syphilitic perihepatitis with only moderate increase in the size of the liver, with friction sound and pain appearing on slight movement. Nor is it like those cases involving the capsule of Glisson, usually associated with the formation of gummata in which dense bands of fibrous structure extend through the organ and, on contraction, leave it deformed by prominent ridges and deep depressions. Such a case came recently under by observation. The man was 36 years old and had acquired syphilis eighteen years before. He had lost thirty-two pounds in weight within a few months; his skin was subicteric, pigmented and harsh; his blood vessels were sclerotic with the resulting changes in the heart and kidneys. There was neither ascites nor distinct jaundice. Chains of slightly enlarged lymph glands could be found. The liver was two inches below the free border of the ribs and deep lines with intervening prominences in the liver could be most readily felt on palpation. This patient is at present improving on mercurial inunctions. It is altogether probable that we have here to deal with a case in which gummata have formed and radiating from these through the liver and appearing on its surface and involving its capsule are dense bands of fibrous tissue.

We usually find moderate enlargement of the liver in diffuse syphilitic hepatitis. It is a condition generally accompanied by a wide symptomatology and sometimes baffles treatment. Nevertheless, when the parenchyma has not undergone too much degeneration, radical measures will often accomplish wonders. I report the following case in illustration of the foregoing statements, and especially because of the question of diagnosis.

CASE 1.—C. E. B., aged 45, American, single, bar tender, entered Buffalo General Hospital, Jan. 30, 1901, complaining of sore throat, pain, swelling of right wrist, cough, expectoration, dyspnea on exertion, and digestive disturbance.

Family History—Father died at 74, mother at 84; two brothers and two sisters alive and well; one brother was killed in Civil war, and one died from tuberculosis.

Personal History.—Patient had suffered from several diseases of childhood, including scarlet fever, and had had several attacks of rheumatism, the first of which occurred five years ago. He had influenza twice. At sixteen years of age he acquired syphilis for which he was treated for a period of two years. He stated that the present trouble began a week before entrance. He had apparently taken cold and suffered from a pharyngitis and tracheo-bronchitis. The patient weighed 250 pounds and was about five feet ten inches high. His tissues were flabby, muscles poorly developed. The right wrist was somewhat swollen and painful. The skin was muddy, icteric, and there was acne rosacea on the face. The temperature was normal, pulse 90, rather quick, small, but of good tension. The heart was slightly enlarged, the first sound at the apex weak, although the aortic second was over accentuated. The abdomen was very fat and was further distended by ascitic fluid, and the large liver, which extended two inches below the free border of the ribs. January 31, the urine was very dark, 1030 specific gravity, highly acid, containing bile-pigment, a trace of albumin, but no sugar. There were a few bile-stained hyalin casts, renal epithelial cells and leucocytes. February 1, he was found to pass 500 c.c. of urine in 24 hours, containing 34.9 grams of solids, 17.5 grams of urea, considerable indican, and some bile-stained, coarsely-granular casts.

Treatment.—The volume of the liver steadily increased and also the ascites, although the man was given purgatives, diuretics, vapor baths and circulatory stimulants. He was given one gram of potassium iodid three times a day with 30 gm. of pil. hydrarg. at night, followed by sodium sulphate in the morning. Ung. hydrarg. was applied to the painful joints. He improved in his symptoms with the exception of the ascites and the liver, which apparently grew worse. The fluid steadily increased, and toward the end of February, the liver extended from the nipple to the umbilicus, a distance of about ten inches. The general condition of the patient was better. March 5, the abdomen was tapped, and 3000 c.c. of bile-stained fluid withdrawn. The iodid was increased and inunctions of mercury applied systematically. With the application of the latter the man began to improve. The ascitic fluid did not reaccumulate and the liver decreased in size.

Results.—The patient was discharged April 17 feeling very well. The lower border of the liver was at the free border of the ribs; it extended upwards to the nipple; it was still large, but the jaundice had disappeared and the man had largely regained his strength. At this date, fourteen months after his discharge, the patient has continued improving. The treatment has been continued at intervals.

By a singular coincidence I had in my wards at the same time another case almost the identical counterpart of this in every way. The ascites was so great that he was frequently tapped, but he was ultimately so far restored that he left the hospital hoping to be able to earn his living.

It is not uncommon to find evidence of a single large gumma, often so superficial that it can be made out by palpation, and frequently accompanied by localized perihepatitis. These cases are often mistaken for malignancy, and as the diagnosis is somewhat difficult it may be worth while to report the following illustrative case:

CASE 2.—William K., American, aged 28, hotel clerk. Entered Buffalo General Hospital, Sept. 13, 1900. Complained of fever, weakness and pain in the right hypochondrium.

Family History.—Mother died at 52 of inflammation of the bowels; father at 65 from an unknown cause. Two sisters and one brother were alive and well. The patient had had but one child born, apparently healthy, but when seven days old began to have hemorrhages from the penis, which recurred frequently for five days until the child died.

Personal History.—The patient acknowledged having had a urethral discharge about ten years ago from which he says he recovered after two weeks' treatment. He denied syphilis positively; no scar could be found; he had used alcohol moderately. The history was otherwise unimportant. The present illness began about two years ago, when the patient complained of pain under the free border of the right ribs which continued for about two months. He then improved, and believed himself to be in good condition until May, 1900, when the pain returned in the same region, extending into the lower thoracic region of the right side. All treatment failed and he steadily grew worse. He formerly weighed 158, but on entrance to the hospital weighed 120 pounds only. He complained of night sweats, loss of appetite, gastric distress after eating, insomnia and great weakness. He had no chills although there was a rise of temperature. Bowels were usually constipated, but were relieved by purgatives. A study of the temperature showed that without any regularity it ranged from 96.5 to 101 degrees F., and the pulse varied from 70 to 100, corresponding in its variation with the temperature. When awake the respirations were uniformly at 20.

Examination.—The physical examination showed that the thorax was negative. There was no abdominal distension, save slight fulness in the right hypochondrium. The area of hepatic dulness was of most interest, extending from the fifth rib to a point slightly above the transverse umbilical line. Palpation confirmed the belief that this was owing to enlargement of the liver, which increase was limited to the right lobe. The lower border of this could be made out as a rounded and comparatively smooth mass, not tender to pressure, apparently non-adherent and its movements accompanied by friction sound. There was no evidence of disease of the gall-bladder. A careful search revealed a few slightly enlarged lymphatic glands in various regions of the body. In other respects the man presented no evidence of syphilis. The blood examination showed 4,883,000 erythrocytes, 9650 leucocytes—a ratio of 1 to 506; hemoglobin was 75 per cent. Analysis of the stomach contents, after an Ewald test breakfast, showed 60 c.c. of expressed pure contents. Free hydrochloric acid .156, total combined hydrochloric acid .078, total organic acids and acid salts .039, total acidity 27.3. There were found present erythrodexin, pepton and free albumin. Microscopically, it was negative. The urine examinations were negative.

Diagnosis.—In the diagnosis the question of malignant growth, tuberculosis and gumma of the liver were considered. September 14 five milligrams of tuberculin were injected and his temperature thereafter taken every two hours for forty-eight hours. It showed a sharp rise to 101.4, but thereafter remained subnormal until the 16th, when he was given an injection of eight milligrams of tuberculin, after which his temperature rose sharply to 100.5, and again fell to subnormal, and remained so until the 20th, when he was given ten milligrams without a reaction. It was concluded that the condition was not tubercular. The evident, though slight, reaction to tuberculin increased the suspicion that the condition was syphilis, as a moderate reaction to tuberculin has occasionally been observed in the late manifestations of that disease. The history in the case pointing to trouble two years past, the general characteristics of the enlargement of the liver, the absence of irregularity, and evidence of primary carcinomatous focus, led us to exclude malignancy.

Treatment.—The diagnosis of gumma of the liver being made, the patient was given potassium iodid in doses of twenty grains before meals, which was discontinued on the 24th, and was replaced by daily inunctions of mercurial ointment.

Results.—Three days later the patient was unquestionably better. The treatment was continued. On the following day his weight was found to be 128 pounds. From this time on his progress continued, his color returned, appetite improved, his weight increased, and the tumor steadily decreased in size. In the early part of October the liver was apparently of normal proportion. The man was discharged from the hospital with directions to continue treatment.

It is possible for a gumma of considerable size to develop in the liver without the association of marked constitutional symptoms, as the following case illustrates:

CASE 3.—A man, aged 39, a merchant of good habits, was referred to me because of the appearance of a lump in the right side which was believed to be malignant. The man appeared to be in fair health, although he said that he had lost 25 pounds, suffered slightly from dizziness and weakness and pain under the right ribs, which was made worse when lying on the left side. His temperature was elevated one degree, his pulse rather weak, his digestion good. The mucous membrane of the mouth was unhealthy and the skin somewhat sodden in appearance. He passed 1000 c.c. of urine in 24 hours, specific gravity 1016, containing 20 grams of urea, an excess of indican, no albumin, a few cylindroids. The examination of the stomach contents showed a good gastric condition. The specific gravity of the blood was 1056, erythrocytes 4,760,000, leucocytes 10,400, hemoglobin 75 per cent. The differential count showed 78 per cent. of polynuclear cells. The red cells were somewhat pale with some megalocytes, microcytes and poikilocytes present. The man had not the cachexia of malignancy. I found on the upper lip, about one-half inch above the mucosa, a characteristic scar, and learned that when a boy about sixteen years old he had some kind of a wart-like sore, which was succeeded by an eruption on his body, for which he took medicine, and made a good recovery. He could not account for the presence of the sore and denied any venereal history. He was treated by a course of mercurial inunctions and made immediate improvement. Three months afterwards the tumor had disappeared. This man has been under observation for two years, and during the last year has been in perfect health.

This case is especially interesting in showing how easily one may be misled by the nature of a tumor. The man was emphatic in his denial of syphilitic infection, and was surprised when I explained to him my belief as to the nature of the disease. Beside that, his general health was less disturbed than might have been expected with a tumor the size of a baseball growing in the lower portion of his liver. It is generally conceded that serious syphilitic lesions of the liver occur only in the last stages of the disease. With the exception of perihepatitis and lymphatic involvement, I am convinced that this is true. The last-named lesion I have seen at a comparatively early period. Besides this, I am satisfied that in the early stages of the affection we find the liver congested, moderately enlarged, somewhat tender and functionating poorly. Very likely this is the immediate results of the constitutional disturbance—the systemic intoxication. In conclusion I may be permitted to express the opinion that hepatic complications are more common in syphilis than one is likely to infer from the literature on the subject. It is worthy of comment that the subject has not received the fulness of consideration that its importance would seem to warrant. I can not state how many cases have come under my observation, but the number is considerable; and in almost every instance the cases have been classified as either cirrhosis of the liver or carcinoma. When one finds cases in which there is a large accumulation of ascetic fluid, it is natural to make the mistake of considering the disease to be simple cirrhosis; but it would seem to be possible to make the differentiation in at least a great majority of cases.

DISCUSSION.

DR. WILLIAM OSLER, Baltimore—I congratulate the Section on the paper read not only on account of its intrinsic importance but on the emphasis laid on a subject of very special interest. I feel sure that visceral syphilis is much more common than the text-books or journals state, or than the general practitioner is willing to admit; not that it is any credit to the general practitioner that visceral syphilis is so common. It is a disease for the general practitioner and not for the specialist. The specialist rarely treats syphilis properly, i. e., thoroughly, and that is the task of the general practitioner. Take the records showing the incidence of cerebral syphilis; the general practitioner says he has not seen a case of cerebral syphilis for ten years; he means, he has not recognized it. In reality, cases of brain and of visceral syphilis are very common, and the frequency means that the patients have not been systematically and thoroughly treated at the outset of the disease. With reference to diseases of the liver due to syphilis, my personal experience leads me to group them in four classes of cases:

1. Syphilis of the liver of congenital type. Formerly I used to see in infants diffuse syphilitic hepatitis of this type frequently enough; but now, as a clinical physician, I see few cases in young persons. These cases are almost always overlooked. It is to be borne in mind that syphilis of the liver of congenital type may occur as a late manifestation. One of the cases I saw was a boy of 11 years; the other a girl of 21 years.

2. In the adult, in this group of cases the patient comes before you with signs of ordinary cirrhosis of the liver, usually an adult man, a hard worker, a hard drinker, who gives a history of taking beer or alcohol. He presents the typical appearances of cirrhosis of the liver, i. e., jaundice, watery eyes, beginning ascites, enlarged smooth tender liver; it does not enter your mind for a minute that the man has syphilis of the liver. He is treated, perhaps purged; the ascites may disappear, but the patient leaves the hospital in the same condition as he entered and the diagnosis is made of cirrhosis of the liver. Yet this patient may return with the liver still enlarged, smooth and with the diagnosis of syphilis written on his back or on his shins in a well-marked syphilitic rash. These cases of syphilis of the liver that present the picture of cirrhosis may be difficult to recognize as syphilitic, yes, even impossible.

3. The third group of cases is more easily recognized because in addition to the cirrhosis there is tumor of the liver, i. e., an irregular liver with ascites and other signs of cirrhosis with often a slight jaundice. The liver may be small. The patient may be tapped three or four times under the supposition that he has to deal with cirrhosis of the liver. Under the influence of the iodids and mercury the ascites may disappear. I feel convinced that a certain number of cases of this type are supposed to be recoveries from cirrhosis of the liver. It should be remembered that Nature heals many of these cases. At the postmortem we know that there are found a large number of healed gummata which were not recognized during life.

4. There is a fourth group of cases occurring in the adult, to which Dr. Stockton has referred, namely, the solitary or multiple syphilitic tumors of the liver, without signs of ascites or enlargement, or at least, a great deal of enlargement, of the liver. There may be multiple or single tumors of the liver. Dr. Miller of Philadelphia reported a case in which the tumor was as large as the two fists on the surface of, and the back of, the liver; it lifted the whole surface of the abdomen. The patient was a robust man, in good health, with no impairment of the general nutrition. That tumor melted away completely under the use of mercury and the iodids. In this group the diagnosis may be made of carcinoma. I have recently seen an interesting case in which there was a distinct tumor of the left lobe of the liver, not very large, with stomach symptoms, pain, etc. This patient lost 25 pounds in weight; he became pale and anemic. At first glance it was thought he had a cancer of the stomach. Remembering other similar cases I inquired into a syphilitic history and found that he had had syphilis. I sent him into the hospital and antisyphilitic treatment was employed; within two months he gained 15 pounds in weight, and the anemia disappeared. Two months and a half after I first examined the tumor it had almost entirely disappeared. I have no doubt but that the case was one of syphilis of the liver.

DR. J. A. WITHERSPOON, Nashville, Tenn.—I have no doubt but that there are many cases of syphilis of the liver and visceral syphilis which are overlooked; I have no doubt that we all have overlooked them at times. I was very much impressed with one statement made, the similarity frequently noticed between enlargements, especially nodular enlargements, of the liver and malignant growths. I have more than once in my experience seen cases in which I felt confident it was of cancerous nature, which afterwards yielded under the use

of specific treatment. The patient's history will simulate that of cancer very closely and the condition of anemia which develops, with the loss of weight, simulates very closely cancer. I have repeatedly seen cases of acute hepatitis, syphilitic hepatitis, occurring in the eruptive period of syphilis; but I have never seen but a moderate enlargement in the early stages of syphilis, the enlargement coming on gradually and insidiously, with deep aching sensations in the region of the right hypochondrium, with progressive loss of flesh, with or without jaundice in the later stages. I have never seen a case of syphilis in which the liver reached a large size without the development of more or less ascites. I remember a case recently seen in which the ascites was so great that it was impossible to outline the liver at all and tapping the abdomen was the only means by which one could palpate the liver. To my surprise, after drawing off all the fluid, I found the liver extending down to the umbilicus. I remember one case which caused me some trouble in diagnosing between a gummatous mass and an enlarged gall bladder; I was in serious doubt whether it was the gall bladder or simply a localized enlargement from the right lobe of the liver.

There is another class of cases that I have seen in which the enlargement of the liver, with some dropsical effusion, was followed by obstruction of the bowel. A surgeon was called in and found by operation a very thick peritoneum and the obstruction was due to a coil of intestines dropping through a band of adhesions. This was removed and the patient recovered, but only after a long course of mercurial inunctions was the recovery complete. This case impressed me considerably; he had a distinct history of syphilis and he had been under treatment and there was no doubt that the primary cause of his trouble was syphilis producing the adhesive band.

So far as the use of iodids and mercurials are concerned I want to say that I have never gotten good results in visceral syphilis by the use of iodid of potassium alone. I have tried it in 20-grain doses, as mentioned by Dr. Stockton, and I have used it in enormous doses without any lessening of the size of the liver. But in the hypertrophic stage it will yield to mercurial inunctions. There is one class of liver syphilis which will not yield to any treatment, that class of cases mentioned by Dr. Stockton in which there is a contraction of the liver. In an enlarged liver with distinct syphilitic involvement, with the glandular enlargement, anemia, etc., these symptoms will disappear under proper treatment, but the indurated liver will remain as before. In this class we find the rigid valley and hills on the liver surface and I have never seen any good result from the antisyphilitic treatment employed. We should not expect it after fibrous contraction has taken place.

One of the largest livers I have ever seen was a syphilitic one and it is wonderful how long a time a child, with evident inherited syphilis, will carry such an enlarged liver without apparent symptoms developing other than those of a general malnutrition. I remember one case, a child one year old, in which the liver reached to the umbilicus. Without a history of syphilis I did not feel that I was warranted in calling it of syphilitic origin. It was associated with general anemia, snuffles, attenuated body; the child developed quite a lot of little eruptions, more like macules, which I attributed to a disordered stomach. What it was I did not know. Under mercurial inunctions there was a remarkably quick recovery.

I should like to refer to one other point in carrying the mercurial inunctions too far in the treatment of syphilis. While the local lesions may improve the systemic condition may become very alarming, the blood count dropping, and I have had to stop the antisyphilitic treatment and place the patient on general restoratives temporarily and then return to specific treatment.

I have seen but a few cases of visceral syphilis, recognized as such, that did not have marked constitutional manifestations to guide us. There is one symptom which invariably brings about some doubt, especially in my country where we regard every fever lasting a few weeks as suspicious of malarial poison, and that is fever. In a syphilitic subject you will find, with the fever, localized tenderness or soreness. I saw one case occurring in a woman in which the retroperitoneal or mesenteric glands were enormously enlarged; because the cervical and axillary glands were also enlarged, and because there was a great deal of anemia, I regarded at first the case as one of Hodgkin's disease, and the rise in temperature was considered to be that which occurs in this disease. I gave an unfavorable prognosis and placed the patient on arsenic and tried my best to ease the pathway to the other side. The patient went on, was better and worse, and finally went to the house of a practitioner who afterward told me that whenever he had a case the true nature of which he did not know he placed the patient on antisyphilitic treatment. He treated this patient in this manner and she is now enjoying good health. I saw the patient a few months ago and she looked like a different woman. I made the mistake when I looked for something rare and so I let her slip through my hands. Gentlemen, I think it is a good plan in cases of suspected syphilis to try specifics; this is especially advisable in that large type of cases referred to by Dr. Osler as cerebral, which manifests itself in more ways than any disease in my knowledge. When I find a case with peculiar symptoms, which point to the nervous system, I do not hesitate to try the antisyphilitic treatment, if I can not exclude syphilis or make a diagnosis, which is impossible in a great many cases.

DR. RICHARD C. CABOT, Boston—I will mention three points: 1. I should like to reiterate what Dr. Witherspoon has stated, namely, that in some cases it is for a time impossible to affect visceral syphilis by antisyphilitic treatment. Two soldiers of the Spanish war came to me affected with syphilis, with a perfectly clear diagnosis, the lesions affecting various organs. Antisyphilitic treatment was vigorously followed without the slightest effect. Measures were then adopted for building up the general health, and, after that had been accomplished the antisyphilitic treatment was effective.

2. I believe it is possible to mistake uremic hemiplegia for cerebral syphilis. I can recall a patient who gave a history of syphilis, with cerebral symptoms and signs, corresponding to what we would expect in cerebral syphilis: hemiplegia with gradual onset, followed by loss of consciousness. A diagnosis of cerebral syphilis was made. The man died and at autopsy a perfectly normal brain was found. There was then noted a glomerular nephritis. It was a case of uremic hemiplegia.

3. With regard to the diagnosis of syphilis, a year or two ago I made studies of the blood in syphilis and tried to verify the findings of Justus, who thought that he obtained in the blood of syphilitics, a characteristic reaction, a great decrease in the amount of hemoglobin after mercurial inunctions. Further investigations have convinced me that the method employed by him was unreliable.

DR. H. B. FAVILL, Chicago—The arraignment by Dr. Osler of the general profession for its remissness in detecting syphilis as a cause of various conditions opens to me a train of reflection. It is true that a great deal of visceral syphilis is misinterpreted. This is, of course, in large part due to the lack of knowledge of the possible facts on the part of physicians. Assuming, however, a proper pathologic conception of the process, on what lines are the conclusions to be laid down? In most instances there is great indefiniteness in the symptomatology and the discriminating man hesitates to adopt as a certainty a hypothesis that has a foundation so inconclusive even though probable. Is it not true that in the majority of the cases of visceral syphilis the diagnosis is reached by exclusion? This presupposes an attitude of mind with regard to the subject that is never oblivious of the possibilities in that direction, yet for the completion of the diagnosis there is necessary to the fullest extent the capacity to weigh and reject alternative views even more than an ability to recognize the earmarks of syphilis. Herein lies the gist of this subject as I see it. It must be admitted, however, that in a very large number of cases the diagnosis is not satisfactorily reached until after the therapeutic test. A recital of experiences by men of such broad experience as Drs. Stockton and Osler will show beyond a doubt that much of their procedure has been based on suspicion subsequently verified by response to treatment. In this there is a note of great encouragement to us of less confidence in the subject, for it is clear that the solution of the matter is to a large extent the constant bearing in mind

of that possibility, with an especial determination not to be swayed by negative history.

There is a phase of this subject not touched on in this discussion, namely, morbid visceral function in those of undoubted syphilitic antecedents, unassociated with anatomic lesions as we now know them. Is there a syphilitic physiology that is susceptible of recognition? Without going into that subject, I wish merely to call attention to the peculiarities of visceral function in children of syphilitic parentage who have none of the obvious signs of inherited disease. I think the experience of those who have investigated that aspect of the disease will accord with mine that there is much to be suspected in that direction. Of all phases of the subject this is the most distinctly dependent on the therapeutic test, which, though open to obvious objections, is not to be despised.

DR. M. H. FUSSELL, Philadelphia—I should like to call attention to one point not touched on by the writer of the paper, i. e., the absolute unreliability of the negative history of syphilis in cases with visceral manifestations; repeatedly have I seen cases of unquestioned visceral syphilis, which responded to antisyphilitic treatment, in which I could not obtain any primary or secondary syphilitic symptoms. With many the reason is that they are careless in their observations of the body and these patients do not have their attention called to their bodies until something hurts. An instance occurred recently in a man with a typical sore throat. I asked him if he had any rash on his body, and he answered, "No, there never has been." On being stripped, however, there was found a typical syphilitic roseola; the patient had been absolutely ignorant of its presence. Within the past few years I have had two cases of visceral syphilis occurring in infants in which I have used inunctions of mercury and iodid of potassium in addition, one grain three times a day; one patient died of an enterocolitis. I should like to ask if this was a coincidence, or the result of the iodid administered.

DR. C. F. HOOVER, Cleveland—I should like to say a few words regarding visceral syphilis. Some ten years ago I was much impressed by an autopsy on an American medical student who was supposed to be suffering from galloping consumption. He was under the care of Professor Nothnagel, who sent him to Switzerland where he did not improve. The cause of his death proved to be syphilis and not consumption. Since then I have looked for visceral syphilis and have been afraid of sending cases with syphilis of the lungs to Colorado. I have seen two cases of syphilis of the lungs, one beyond a question of doubt. This was a young man, who gave a clear history of syphilis, who had a marked dulness at the base of both lungs, expectoration of blood, temperature, night-sweats, loss of weight and other signs quite characteristic of tuberculosis, but an examination of the sputum revealed no tubercle bacilli. Antitubercular treatment failed to give relief, but iodid of potassium caused the fever to cease and, two months later, no evidence was to be found in the lungs and the patient is well to-day. Another man came under my observation with syphilis of the liver and spleen, with evidences of older gummata over the region of the sternum and clavicle and the physical signs of infiltration at the apex of the right lung. The man was unquestionably a syphilitic and, under antisyphilitic treatment, all the physical signs, the dulness and râles, disappeared within a few weeks. Visceral syphilis occurs, in the vast majority of cases, in the liver and then occurs next in frequency in the spleen.

I should like to refer to one point in the treatment of these syphilitic cases. I think that from the discussion of the subject one may be misled; the impression that I have gotten so far is that, in all cases, no therapeutic result will be obtained in marked instances of retraction and lobulation. I remember several instances where the patient was under antisyphilitic treatment, and still the fluid reaccumulated. To illustrate the point: one patient had serum in the abdominal cavity and remained in the hospital six months. His spleen was enormous. A diagnosis of syphilis was made. Iodids and mercurial inunctions were given without the slightest effect. The serum reaccumulated and he was tapped twice a week and then three times a week, then three or four times a day, drawing off four or five quarts of serum. On the day following the tapping the abdomen would again be filled with serum. At last he had a profuse hemorrhage from the bowels and died. The autopsy showed the abdominal cavity dry. It seems that he was pumping a big wave of blood serum which contained no erythrocytes.

DR. THOMAS MCCRAE, Baltimore—In answer to the question as to the treatment of solitary tumors of the liver due to syphilis, the patients referred to by Dr. Osler were placed on potassium iodid and mercurial inunctions; the iodid was given in 20-grain doses three times a day for six months. In the last case referred to by Dr. Osler improvement followed in five weeks.

DR. JAMES J. WALSH, New York—Since mercury is so prompt and effective in its action on syphilitic lesions, it is unfortunate that opportunities for its successful employment should sometimes be missed. Undoubtedly there are many cases of visceral syphilis in this country the diagnosis of which is missed entirely. It can not be too much insisted on that the absence of syphilitic history must not be accepted as an absolute guide in this matter. Syphilitic cirrhosis of the liver is without doubt sometimes treated as alcoholic cirrhosis. I have myself seen one case within a year in which a patient had been tapped several times for an ascites presumed to be of alcoholic hepatic origin, but which was really due to a large gummatous liver. Mixed treatment did away with the necessity for further tapping. A certain number of fatal cases occur every year that would surely survive if the mixed treatment were properly employed. In obscure lesions of the viscera the rule adopted by the neurologists should be adopted also by the general practitioner. When degenerative changes exist for which no good reason can be assigned the patient is put on specific treatment even though there should be no syphilitic history. There will be no regret if this rule is followed. Secondary symptoms are often so light as to escape notice and a primary lesion may run a typical course without attracting attention. I have seen a physician with chancre on the finger that had existed for nearly two weeks without exciting his suspicions. Two years ago I saw a professor in one of our colleges who came because of a tumor apparently of the splenic flexure of the colon. It was thought to be malignant and one of the best surgeons in the country advised operation and gave a very bad prognosis. Despite the absence of syphilitic history the therapeutic test of the mixed treatment was employed and the patient began to improve almost immediately. The tumor decreased greatly in size. It is now two years and four months since he was given less than six months to live and though there are some remnants of the tumor still left he considers himself in good health.

DR. T. B. FUTCHER, Baltimore—There is one point which should be brought up which has a bearing on visceral syphilis, and that is the possibility of visceral syphilis, in a percentage of cases, being the cause of fever of obscure origin. Recently I recorded three cases of fever of syphilitic origin occurring in Dr. Osler's wards. Sidney Phillips, a number of years ago, reported an interesting case of intermittent fever occurring in a patient who had contracted syphilis eight years previously. For a period of eight months this patient had had fever which was clinically indistinguishable from the fever observed in malaria. It occurred every other day, with chills and sweating. No malarial parasites were found in the blood. Later it was found that the husband had had syphilis shortly before he was married and his wife had contracted the infection from him. The patient was placed on iodid of potassium and immediately the chills, fever and sweating subsided. The fever of late syphilis is generally of continuous type, or of the intermittent type already described. In one of the three cases I referred to, the patient did not know that he had had syphilis and came into the hospital with a continuous type of fever which lasted for some weeks. The case occurred before the days of the Widal test and it was regarded and treated as typhoid fever. When the temperature refused to go down under treatment a subsequent examination revealed the fact that there was slight thickening of the clavicles and some evidence of cirrhosis of the liver. It was suggested that possibly the fever might be of

syphilitic origin. Under antisyphilitic treatment the temperature returned to the normal in three or four days. I speak of this case because of its obscure origin, due probably in part to visceral syphilis. As Dr. Hoover has already mentioned, a good many of these cases may be mistaken for tuberculosis of the lungs. Some years ago Dr. Janeway read a paper in which he reported a number of cases of syphilitic fever which had been sent to the Adirondacks for treatment for tuberculosis of the lungs. On the administration of the antisyphilitic treatment the fever ceased and the patients soon recovered.

DR. STOCKTON, in closing—I wish to express my pleasure in finding that the subject has such a widespread interest; I believed that it would be interesting and I have not been disappointed. Dr. Osler has referred to a case which closely resembled ordinary cirrhosis of the liver and which was with difficulty separated from and distinguished from simple cirrhosis. Some cases reported by me, occurring in adults, had ascites, jaundice and associated symptoms. Dr. Osler dwelt on the point of associated jaundice and ascites, but personally I find fewer cases of cirrhosis of the liver with jaundice. When I find a patient suffering from a liver condition that may be cirrhosis, with associated jaundice and cachexia, I feel that the patient probably has visceral syphilis and not simple cirrhosis of the liver. In other words, jaundice with evidences of cirrhosis leads me at least to the suspicion of syphilis.

Dr. Witherspoon has stated that he has rarely seen much enlargement of the liver without ascites as an accompanying symptom. There are cases of enlargement of the liver of syphilitic origin, without ascites, and these are not so very common if we exclude general syphilitic hepatitis. In syphilitic hepatitis we almost invariably have jaundice. Yet we here occasionally find large or small gummata scattered through the liver, but we may find a good deal of enlargement without accompanying ascites; it depends largely on where the gumma is located. I have to-day reported cases in which there were tumors without either ascites or jaundice, and in one of them the disease gave rise to an enlargement of the liver of considerable proportions. The Doctor is right in stating that there is one form of syphilis of the liver which can not be improved by treatment, and that is in those instances where the liver becomes contracted as a late result. Such cases may not be expected to improve for such a patient is to that extent without a liver; still, there may be a temporary improvement. I remember a colored man who had an enormous hepatic growth which was thought to be a gumma; although he improved under treatment, ultimately he died from the results of a contracted liver. I doubt very much whether cases of syphilis of the liver will improve under any general treatment, unless accompanied by antisyphilitic treatment; I have never seen a case that did so. In cases of syphilis with malaria or some other associated condition no good effect will be produced unless the antisyphilitic treatment be employed in conjunction with the other treatment. Without mercury and the iodids you are opposing a hopeless proposition; but, with the addition of such measures, and the association of general hygienic treatment, you have a favorable prognosis.

Dr. Favill has asked Dr. Osler how he treated a case of syphilis which resembled malignant growth, and I was surprised to hear the question. I do not see how he could treat it except by the iodids and mercury—by inunctions—by all the usual means. Visceral syphilis is not a rare condition, but is much more common than is supposed. I have been chagrined that so many of such cases escaped me in former years—those that I now am curing by antisyphilitic treatment.

Diagnosis versus Drugging.—In the fight which we have to wage incessantly against ignorance and quackery among the masses and follies of all sorts among the classes, *diagnosis*, not *drugging*, is our chief weapon of offense. Lack of systematic personal training in the methods of the recognition of disease leads to the misapplication of remedies, to long courses of treatment when treatment is useless, and so directly to that lack of confidence in our methods which is apt to place us in the eyes of the public on a level with empirics and quacks. —Osler.

AN ANALYSIS OF SEVENTY CASES OF GASTROPTOSIS.*

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It is the purpose of the present contribution to place on record the study of a number of cases of gastroptosis, to analyze them and to draw conclusions which will be statistically accurate in the light of our present knowledge of the condition. The view that gastroptosis is usually associated with downward displacement of the transverse colon and movability of one or both kidneys and more rarely of the liver, has long obtained, but if we except the paper of Arneil there has been wanting a collection of cases systematically studied on which to base definite conclusions.

The records from which our material has been drawn, except a few cases in our private practice, were taken from our service in the Medical Dispensary of the Hospital of the University of Pennsylvania in the past two years. Our conclusions are based on the study of seventy consecutive cases. The positions of the stomach and colon were determined after inflation with air, the kidneys examined for mobility, the recti muscles for separation and the gastric contents after a test meal. Our investigations included as well the condition of the blood and urine.

The authors have been particularly impressed by the frequency of gastroptosis in women in general, and especially in that class which present themselves at our dispensaries. In thirty-five consecutive cases of women applying with stomach symptoms of the flatulent type gastroptosis was found in all. We are of the opinion that gastroptosis and enteroptosis are much more common than is usually supposed, and that in a very large proportion of all women complaining of symptoms of gastric motor insufficiency the dominant factor is downward displacement of the pyloric end of the stomach.

The pathogenesis of splanchnoptosis has not been touched on, for, unfortunately, the clinical study of these cases sheds little light on this much-vexed question. As to the theory of a congenital or acquired diathesis predisposing to splanchnoptosis there can be but little doubt that women of weak muscular organization are predisposed to it, and are more easily affected by exciting causes, which have little or no effect on other individuals. The most common of these exciting causes is probably something that tends to constrict the thorax or upper abdomen or to increase the volume of the abdominal cavity. Perhaps the truest thing that can be said in this connection is, that different causes are potent in different cases, and it is not wise or necessary to try to formulate a theory that will apply in every instance.

Our series included all types of individuals. Not only women in middle life who had borne children and who showed a considerable degree of diastasis of the recti muscles, but also males and young nulliparous women whose abdominal walls were firm and where normal approximation of the recti existed.

POSITION OF THE STOMACH.

The stomach was first emptied by lavage and then inflated with air through the tube. As the organ is dis-

* Read at the Fifty-third Annual Meeting of the American Medical Association, in the Section on Practice of Medicine, and approved for publication by the Executive Committee: Drs. Frank A. Jones, George Dock and J. M. Anders.

tended it rises to the abdominal wall, and its outline can usually be plainly seen. By percussion and auscultation, however, its position and size are accurately determined and noted on a suitable diagram. In order to convey to the reader an approximate idea of the size and position of the stomach the authors have divided the distance between the umbilicus and ensiform, and the umbilicus and top of the symphysis, each into four equal divisions. The two principal areas thus subdivided are usually equal, and in persons of average stature are about five to six inches or twelve or fifteen centimeters in extent. While at the first glance this may appear somewhat confusing, practically it is not so, as it will be found that nearly all displaced stomachs will fall into one or another of these positions without in any sense coercing natural boundaries to arbitrary lines. It may incidentally be said of the umbilicus, as of the nipple, that it is not a fixed point, but for practical purposes it is a fairly accurate landmark.

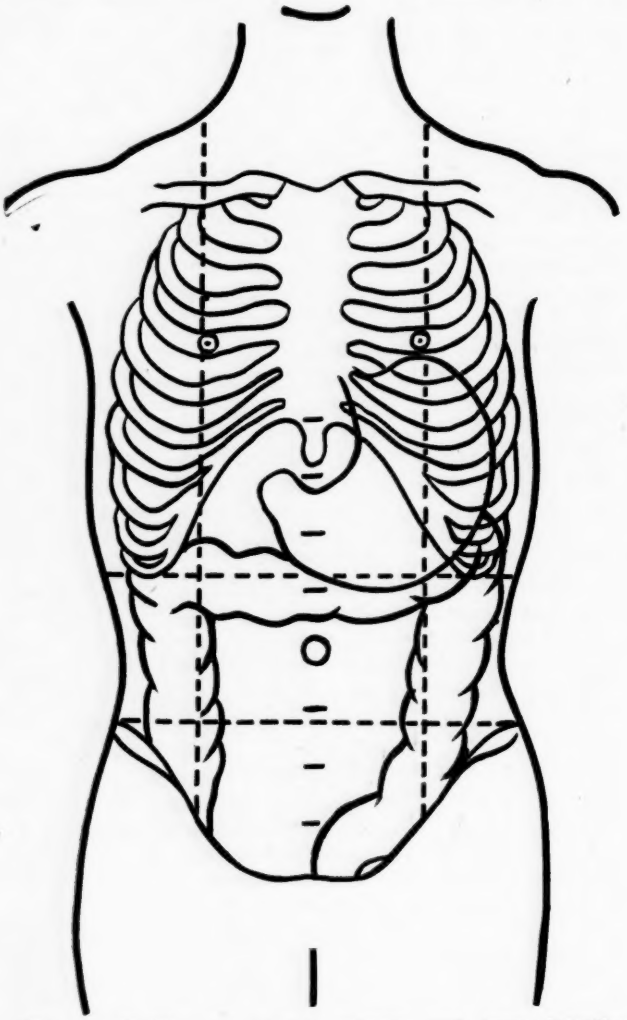

Fig. 1.—Position of normal stomach and large intestine. (Quain.)

Following this plan it will be found that the upper and lower curvatures or borders of the stomach may in the vast majority of cases be spoken of as falling in the quarter, mid or three-quarter line or position above or below the umbilicus; and it may be stated that in the prevailing type of gastroptosis the umbilicus is found to be the center of a circle, formed by the dilatation of the pyloric end of the stomach with the upper and lower curvatures midway between the ensiform and symphysis respectively. The cardiac end remains in its normal position, slightly above and behind the apex of the heart, and the general curve of the displaced viscus has not inaptly been described by Kelling as resembling a fishhook (diagram of typical cases).

In a recent paper by Dr. Steele, the statement is made that in his list of cases there were several that showed displacement of the cardiac end, giving rise to the descensus in toto or hunting-horn shape described by Riegel. Further examination of these cases have convinced us that this was an error. While theoretically such displacement is possible, no instance of it appears in our list, which includes Dr. Steele's cases, and we feel that its occurrence must be very rare. The cases in which the error was made presented an extreme degree of pyloric

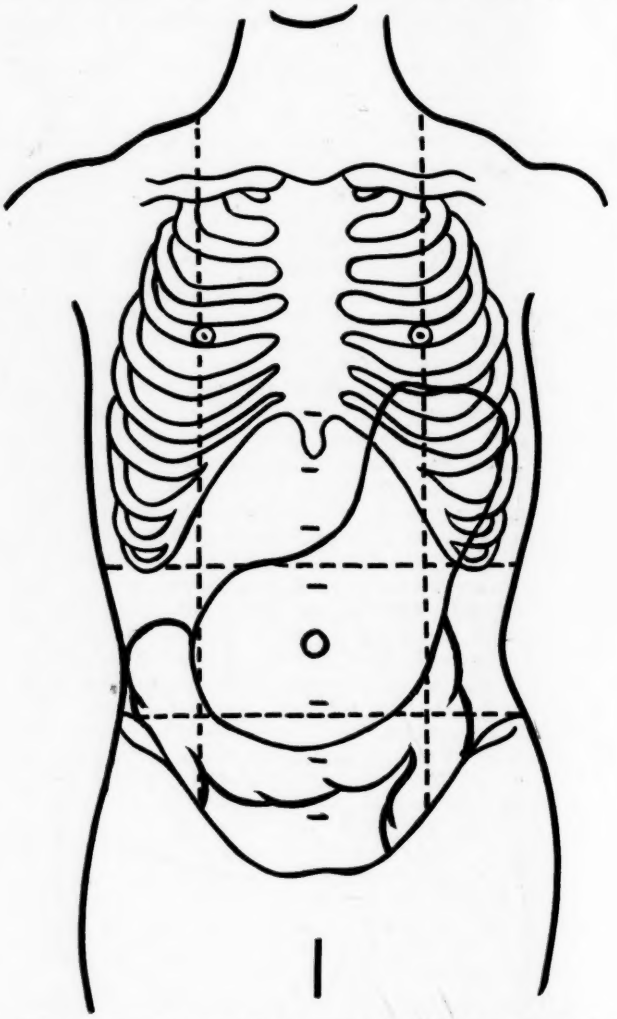

Fig. 2.—Case 31. Female, 27 years. Gastroptosis and enteroptosis. Pyloric dilatation.

dilatation in stomachs originally small, but careful examination has convinced us that the cardiac end was in its normal position. In our series of 70 cases the upper and lower curvatures in 26 were midway between the ensiform and umbilicus, and symphysis and umbilicus respectively; in 12 the upper curvature was in the quarter position above, with the lower curvature midway below; in 9 the upper curvature was in the three-quarter position above, with the lower curvature midway below; in 7 the upper curvature was midway, the lower curvature in the quarter position below; in 5 the upper curvature occupied the three-quarter position above, the lower curvature the one-quarter position below; in 3 the upper curvature was in the one-quarter position above, with the lower curv-

ature in the three-quarter position below; in 2 the upper curvature was midway, with the lower curvature in the three-quarter position below; in 2 cases the upper curvature was at the ensiform and the lower curvature was midway between the umbilicus and symphysis; in 2 cases the upper curvature was at the umbilicus and the lower curvature midway; in 1 case the boundaries were at the ensiform and midway between the umbilicus and symphysis, and in 1 case the boundaries were in the one-quarter position above and below the umbilicus.

DILATATION OF THE STOMACH.

Some dilatation of the pyloric end of the stomach was present in every one of our series. The average degree of enlargement is such that the outline of the pyloric extremity forms three-quarters of a circle, of which the center is the umbilicus. (Fig. 2.) It is conceivable that there may be a stage, very early in the course of primary gastroptosis, when pyloric dilatation is absent, but by the time the patient seeks medical advice such a condition is invariably present. This form of dilatation may readily be accounted for by the loss of muscular tone, stagnation and fermentation of the retained contents and the consequent distention. Another factor in its causation is the increased effort necessary on the part of the weakened muscle to force the food up and through the pylorus and the prolapsed first and second portion of the duodenum, so that it may enter the third portion and thus on into the small intestine.

When the cardiac end of the stomach is enlarged as well we have considered the condition to be one of general gastrectasia. (Fig. 3.) Our investigations have convinced us that in a majority of cases general dilatation does not long exist without downward displacement of the pylorus, due to the dragging of the enlarged and over-weighted pyloric end on its supporting ligaments.

The proper etiologic relation of pyloric and general dilatation is probably correctly explained by saying that pyloric dilatation is secondary to a primary gastroptosis, while in general dilatation with gastroptosis the former is the primary factor.

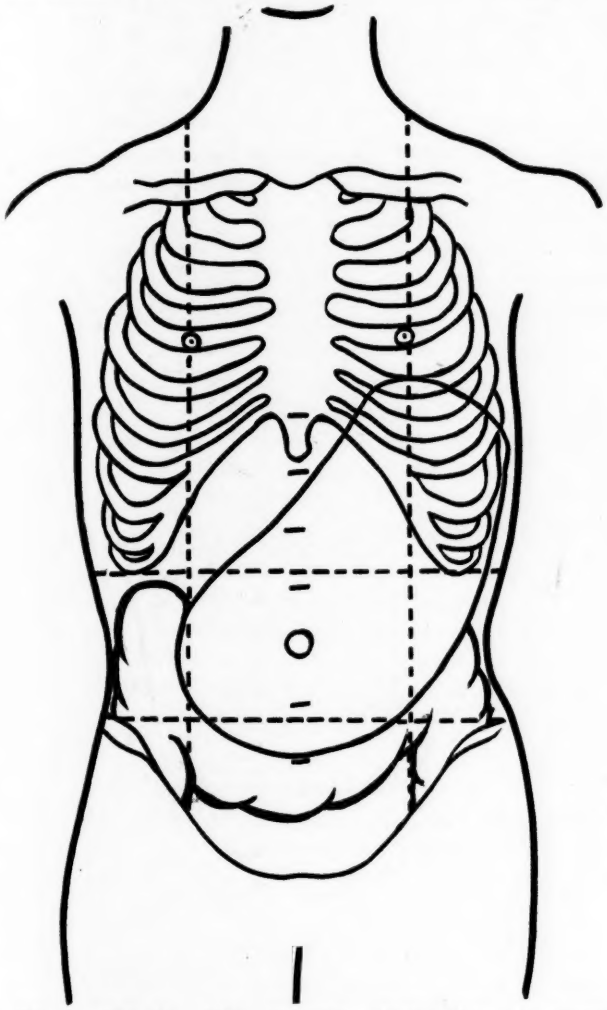

Fig. 3.—Case 53. Male, 30 years. Gastroptosis and general dilatation. Enteroptosis.

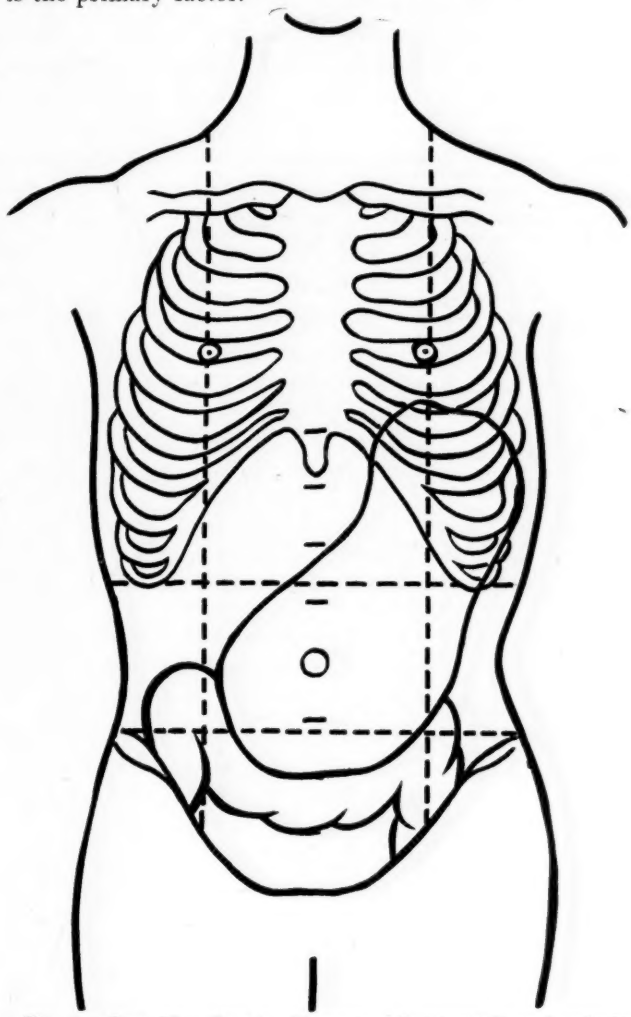

Fig. 4.—Case 52. Female, 34 years. Gastroptosis and pyloric dilatation. Enteroptosis.

The comparison of the forms of dilatation occurring in the two sexes is of interest, since it shows that general dilatation in combination with downward displacement of the pylorus is more common in men, implying that gastroptosis in the male sex is due to primary dilatation in more than half the cases in which downward displacement of the pylorus exists.

Gastroptosis with pyloric dilatation alone occurred in 50 women and in 7 men.

Gastroptosis with general dilatation occurred in 2 women and in 10 men.

POSITION OF TRANSVERSE COLON AND FLEXURES.

The question of the position of the transverse colon, and more especially of the colonic flexures, is one of

ANALYSIS OF CASES.

Case No.	Position of Stomach. (U. c.—upper curvature; g. c.—greater curvature; c.—cardiac end.)	Form and Degree of Dilatation of Stomach.	Position of Colon. (H.—hepatic flexure; umb—umbilicus.)	Movability of Kidney. (R.—right; L.—left.)	Blood: per cent of hemoglobin and red cells.	Diastasis of recti muscle.	Analysis of Meal. Test Ta.	Analysis of Meal. HCl.	Age and Sex.	Remarks.
1	U. c., ¾ position; g. c., midway; c., 6th rib.	Pyloric, considerable.	H. at umb.	Not palpable.	H. 35; r. c. 70.	None	37	5	11, F.	Chlorosis.
2	U. c., midway; g. c., midway; c., 5th rib.	Pyloric, considerable.	H. at level of umb.	R. 1 degree	H. 80; r. c. 108.	"	45	10	27, F.	
3	U. c., ¾ position; g. c., midway.	Pyloric, considerable.	H. 3 cm. below umb.	" "	H. 35; r. c. 94.	"	30	10	41, F.	
4	U. c., midway; g. c., ¼ position; c., 6th rib.	Pyloric	H. at costal margin.	Not palpable.	H. 78; r. c. 96.	"	35	7	18, F.	
5	U. c., midway; g. c., ¼ position; c., 7th rib.	"	H. at level of umb.	" "	H. 70; r. c. 110.	3 cm.	40	8	27, F.	
6	U. c., ¾ position; g. c., midway; c., 5th rib.	Pyloric, considerable.	" " "	R. 3 degrees.	H. 70; r. c. 102.	5 cm.	25	1	45, F.	Three children; floating tenth rib.
7	U. c., ¾ position; g. c., ¼ position; c., 4th inter...	Pyloric, considerable.	" " "	R. 2 degrees.	H. 85; r. c. 92.	6 cm.	36	10	30, F.	
8	U. c., midway; g. c., ¼ position; c., 5th rib.	Pyloric, considerable.	" " "	R. 1 degree	H. 90; r. c. 108.	None	22	4	40, F.	Floating tenth rib.
9	U. c., ¼ position; g. c., midway; c., 5th rib.	Pyloric, considerable.	" " "	R. 2 degrees	H. 85; r. c. 108.	3 cm.	31	1	42, F.	
10	U. c., midway; g. c., midway; c., 5th rib.	Pyloric, considerable.	H. 5 cm. below umb.	Not palpable.		None			26, F.	
11	U. c., midway; g. c., ¼ position; c., 6th rib.	Pyloric	H. at level of umb.	R. 2 degrees		3 cm.		0	42, F.	One child.
12	U. c., midway; g. c., ½ position; c., 5th rib.	"	H. 3 cm. below umb.	" "					47, F.	Three children.
13	U. c., ¾ posi.; g. c., midway; c., 5th interspace.	" great	H. at level of umb.	Not palpable.	H. 92; r. c. 110.	Slight.	28	7	42, F.	Ten children.
14	U. c., midway; g. c., midway; c., 6th interspace.	Pyloric, considerable.	" " "	" "		"			42, F.	Five children.
15	U. c., midway; g. c., midway; c., 6th rib.	Pyloric, considerable.	" " "	R. 2 degrees.	H. 78; r. c. 96.	"	30	2	43, F.	
16	U. c., ¾ posi.; g. c., midway; c., 6th interspace.	Pyloric, great.	" " "	R. 1 degree	H. 75; r. c. 84.	3 cm.			66, F.	Eight children.
17	U. c., ¼ position; g. c., midway; c., 6th rib.	Pyloric	" " "	Not palpable.	H. 80; r. c. 106.	None	34	9	22, F.	
18	U. c., ¾ position; g. c., midway; c., 5th rib.	General.	H. 3 cm. below umb.	" "	H. 90; r. c. 110.	"	45	9	23, M.	
19	U. c., ¾ position; g. c., ¼ position; c., 4th rib.	Pyloric, considerable.	H. at level of umb.	" "	H. 88; r. c. 106.	"			38, M.	
20	U. c., midway; g. c., midway; c., 5th rib.	General.	H. 3 cm. above umb.	" "		"			30, M.	
21	U. c., midway; g. c., midway; c., 6th rib.	Pyloric	2 cm. above umb.	" "		"	50	15	30, M.	
22	U. c., ¾ position; g. c., ¼ position; c., 5th rib.	General.	H. at level of umb.	" "	H. 90; r. c. 100.	"	70	35	35, M.	
23	U. c., midway; g. c., midway; c., 5th rib.	"	H. at costal margin.	" "		"			32, M.	
24	U. c., midway; g. c., midway; c., 5th rib.	Pyloric	H. at level of umb.				6	0	27, F.	One child.
25	U. c., midway; g. c., ¼ position.	"	H. 5 cm. below umb.	R. 3 degrees.	H. 65; r. c. 60.	4 cm.	Present		41, F.	Four children; operati'n; nephrorrhaphy; suspensio uteri and approximation of recti.
26	U. c., ¼ position; g. c., midway; c., 6th inter.	"			H. 72.		45	20	20, F.	
27	U. c., midway; g. c., midway; c., 6th rib.	"		R. 1 degree	H. 90.		40	0	37, F.	
28	U. c., ¾ position; g. c., midway; c., 6th inter.	Pyloric, considerable.		" "	H. 60; r. c. 64.		56	15	43, F.	
29	U. c., midway; g. c., midway; c., 6th rib.	Pyloric, considerable.		" "		None	25	0	48, F.	
30	U. c., midway; g. c., midway; c., 6th rib.	Pyloric		" "	H. 70; r. c. 63.		50	15	35, M.	
31	U. c., midway; g. c., midway; c., 6th interspace.	"		Not palpable.	H. 90.		43	4	27, F.	
32	U. c., midway; g. c., midway; c., 7th rib.	"		" "	H. 90; r. c. 100.		16	Trace	47, M.	
33	U. c., midway; g. c., ¾ position; c., 6th inter.	Pyloric, great.		" "	H. 68.		8	0	50, F.	Three children.
34	U. c., ¾ position; g. c., ¼ position; c., 6th rib.	Pyloric, considerable.		" "	H. 90; r. c. 100.	3 cm.			30, F.	Seven children.
35	U. c., ¾ position; g. c., midway; c., 4th rib.	Great general.		" "	H. 90; r. c. 100.	None	64	30	55, M.	
36	U. c., ¼ position; g. c., midway; c. 6th inter.	Pyloric		R. 1 degree	H. 70.				38, F.	
37	U. c., ¼ position; g. c., ¾ position; c., 7th rib	Pyloric, considerable.							45, F.	One child.
38	U. c., ¼ position; g. c., ¾ position; c., 7th rib.	Pyloric, considerable.		R. 2 degrees.	H. 95; r. c. 100.				35, F.	Four children.
39	U. c., ¼ position; g. c., midway; c., 6th inter.	Pyloric			H. 75; r. c. 100.				30, F.	Two children.
40	U. c., ¼ position; g. c., midway.	"				3 cm.			50, F.	
41	U. c., ¼ position; g. c., midway; c., 7th rib.	"			H. 65; r. c. 90.		5	0	26, F.	Four children.
42	U. c., ¼ position; g. c., ¾ position; c., 7th inter.	General.		R. 1 degree	H. 65; r. c. 90.		17	0	40, F.	
43	U. c., ¼ position; g. c., midway; c., 7th inter.	Pyloric		" "	H. 95; r. c. 100.				20, F.	
44	U. c., midway; g. c., midway; c., 6th interspace.	"		Not palpable.	H. 95; r. c. 100.	None			27, M.	
45	U. c., midway; g. c., ¼ position; c., 6th inter.	"		R. 1 degree	H. 95; r. c. 100.	3 cm.			27, F.	One child.
46	U. c., ¾ position; g. c., ¼ position; c., 4th inter.	General.		" "	H. 95; r. c. 100.	None	46	0	43, M.	
47	U. c., midway; g. c., ¼ position.	Pyloric		" "	H. 95; r. c. 100.	"			26, F.	
48	U. c., ½ position; g. c., ½ position; c., 6th rib.	"	H. at costal margin.	R. 2 degrees.	H. 95; r. c. 100.	"	25	9	40, F.	
49	U. c., midway; g. c., midway; c., 6th rib.	"	H. below umb.	R. 3 degrees.	H. 95.	"	56	15	27, F.	Opera.; nephrorrhaphy; gastroplexy.
50	U. c., ¼ position; g. c., ¼ position; c., 6th rib.	General.		Not palpable.	H. 68; r. c. 76.		71	10	25, M.	
51	U. c., midway; g. c., midway; c., 6th rib.	"	H. at costal margin.	" "	H. 89.	None		0	71, M.	
52	U. c., midway; g. c., midway; c., 6th interspace.	Pyloric	H. 2 cm. below umb.	R. 2 degrees.	H. 95; r. c. 86.	"			34, F.	Operation; gastroplexy.

ANALYSIS OF CASES *(Continued.)*

Case No.	Position of Stomach. (U. c.—upper curvature; g. c.—greater curvature; c.—cardiac end.	Form and Degree of Dilatation of Stomach.	Position of Colon. (H.—hepatic flexure; umb.—umbilicus.)	Movability of Kidney. (R.—right; L. left.)	Blood: per cent. of hemoglobin and red cells.	Diastasis of recti muscle.	Analysis of Meal. Test Ta.	Analysis of Meal. HCl.	Age and Sex.	Remarks.
53	U. c., midway; g. c., midway; c., 5th rib.	General.	H. at costal margin.	Not palpable.	H. 85; r. c. 110.	None .	80	40	30, M.	
54	U. c., midway; g. c., midway; c., 5th rib.	Pyloric	. . . . .	R. disloca., but not movable	H. 75; r. c. 100.	" .	54	0	39, F.	Ten chil'n; hepatoptosis; operation; hepatoplexy.
55	U. c., umbilicus; g. c., pubis; c., 5th rib.	General, immense	. . . . .	R. 3 degrees; l. 3 degrees.	. . . . .	5 cm. .	. . . . .		50, F.	Hepatoptosis and splenoptosis.
56	U. c., ¾ position; g. c., midway; c., 6th rib.	Pyloric	. . . . .	. . . . .	. . . . .	. . . .	48	26	35, F.	One child; hepatoptosis; operation; gastroplexy.
57	U. c., umbilicus; g. c., midway; c., 6th rib.	"	. . . . .	R. 1 degree . .	H. 82; r. c. 80.	. . . .	22	0	27, F.	One child.
58	U. c., umbilicus; g. c., midway; c., 5th inter.	"	. . . . .	" " . .	H. 90.	Slight..	35	15	35, F.	Four children.
59	U. c., midway; g. c., midway; c., 6th interspace.	"	. . . . .	Not palpable..	. . . . .	None .	80	35	27, F.	
60	U. c., midway; g. c., midway; c., 6th rib.	"	. . . . .	R. 1 degree; l. 1 degree.	. . . . .	Slight..	. . . . .		35, F.	Four children.
61	U. c., ¼ position; g. c., midway; c., 5th rib.	"	H. at level of umb.	R. 3 degrees. .	H. 80; r. c. 102.	None .	. . . . .		27, F.	
62	U. c., midway; g. c., midway; c., 5th rib.	"	H. 2 cm. above umb.	Not palpable..	H. 90; r. c. 102.	Slight..	. . . . .		43, F.	One child.
63	U. c., ¼ position; g. c., midway; c., 5th inter.	"	H. at level of umb.	R. 2 degrees. .	H. 80; r. c. 82.	None .	5	0	58, F.	
64	U. c., midway; g. c., midway; c., 7th rib.	"	. . . . .	R. 2 degrees. .	H. 96. . . .	" .	40	14	50, M.	
65	U. c., ¼ position; g. c., midway; c., 6th inter.	"	H. at level of umb.	Not palpable..	H. 90. . . .	" .	35	16	45, M.	
66	U. c., ¼ position; g. c., midway; c., 6th rib.	"	H. at costal margin.	R. 2 degrees; l. 2 degrees.	. . . . .	" .	. . . . .		60, F.	
67	U. c., ¼ position; g. c., midway; c., 6th inter.	"	. . . . .	R. 3 degrees; l. 2 degrees.	. . . . .	" .	. . . . .		37, F.	
68	U. c., midway; g. c., midway; c., 6th interspace.	"	. . . . .	Not palpable..	. . . . .	" .	75	47	28, M.	
69	U. c., midway; g. c., midway; c., 5th rib.	"	. . . . .	R. 1 degree . .	. . . . .	" .	. . . . .		31, F.	
70	U. c., midway; g. c., midway; c., 5th rib.	General.	H. at costal margin.	Not palpable..	H. 95; r. c. 92.	" .	110	40	50, M.	Ulcer of lesser curvature found at operation; hepatoptosis.

considerable difficulty. We have examined the colon by inflation with air in thirty-six cases of our series. While we regard air inflation through the rectum as the best of the different methods so far devised, it is only in certain cases that a very definite idea can be obtained of the position of the large intestines. Unless the abdominal wall is thick or very rigid the sigmoid flexure, the transverse colon and the cecum may be seen and palpated when the bowel is inflated with air. In each percussion has been employed to confirm the results of inspection and palpation.

From the study of these cases the authors are of the opinion that in gastroptosis the transverse colon always shares in the downward displacement, and when filled with air occupies a position immediately below and in contact with the greater curvature.

The more difficult question is in regard to the hepatic and splenic flexures. The theory of Virchow and Glenard, that the hepatic flexure descends first, dragging after it the right half of the transverse colon, while the splenic flexure remains in place, is as difficult to substantiate as to disprove. The hepatic flexure lies more deeply than the transverse colon or the cecum, and while its upper limit is apparently fairly well defined by the upper limit of the tympany elicited in the right flank after inflation, we can not but feel that there is considerable room for error.

The splenic flexure lies behind the greater curvature and cardiac end of the stomach and eludes satisfactory demonstration. The accompanying Fig. 1, after Quain, shows the normal position of the colon, while in Fig. 3 the hepatic flexure is in a fairly normal position, and Fig. 4 illustrates the extreme limit of displacement observed in our cases. In our series we usually found downward displacement of the hepatic flexure, while the splenic flexure was lost on the opposite side of the abdomen usually 3 to 5 centimeters below the umbilicus, where it passed behind the greater curvature. In several cases the hepatic flexure was plainly as high as the costal margin. We believe that both the bowel and stomach, when inflated, tend to assume a higher position than when empty and relaxed. Thus, in Cases 25 and 56, where the position of the viscera was determined at operation, the transverse colon lay fully a hand's breadth below the greater curvature, while the flexures were well above the umbilicus—although in all of our cases the colon, when inflated, followed closely the lower border of the stomach. It may well be that in many of such displacements the undistended transverse colon sinks much lower than the stomach, but when filled with air rides upward as well as forward to the abdominal wall and comes in contact with the greater curvature.

In Case 70 operation showed that the lesser curvature was midway between the umbilicus and pubis, although inflation indicated that the stomach occupied almost all of the epigastrium.

POSITION OF KIDNEYS, LIVER AND SPLEEN.

In our examination of the kidneys we have employed the bimanual method, in which the patient lies on the back with the thighs flexed on the abdomen and with the abdominal wall as relaxed as possible. One hand is placed over the lumbar region and the other is passed down, as far as possible, under the margin of the ribs. Palpation is made during both forced respiration and when the abdomen is in repose. In describing the degree of displacement we have adopted the following nomenclature. When the lower edge can be felt on deep palpation the kidney is said to be movable in the first degree. The term second degree is used when during a forced inspiration the finger tips can be slipped above the upper pole of the organ, but it can not be brought below the level of the navel. When the kidney can be pushed freely about in its own half of the abdomen, or even beyond the median line, the term third degree is applied. In 39 out of 64 cases, or 60.9 per cent., the right kidney could be palpated. In 18 of these it was barely palpable, in 12 it was movable in the second degree, and 9 cases were movable in the third degree. Both kidneys were movable in 4 cases. Ptosis of the liver occurred 3 times and of the spleen once.

MOVABILITY AND PTOSIS OF KIDNEYS, LIVER AND SPLEEN.

Right Kidney Alone Movable.

Females:	First degree	15
	Second degree	10
	Third degree	7
Males:	First degree	2
	Second degree	1
	Total	35

Both Kidneys Movable.

Both first degree	1
Both second degree	1
Right third, left, second degree	1
Both third degree	1
Total	4

Total cases gastroptosis with ptosis of kidneys	39, or 60.9 p. c.
Total cases gastroptosis with ptosis of liver	4, or 5 p. c.
Total cases gastroptosis with ptosis of spleen	1, or 0.7 p. c.

CASE 54.—Operation showed a much enlarged liver, which was displaced downward and was abnormally movable. Gastroptosis and movable right kidney.

CASE 55.—There was great movability and displacement of both kidneys (third degree), liver and spleen.

CASE 56.—Operation showed that the liver was unduly movable and displaced downward.

CASE 70.—Operation showed a floating liver. Gastric ulcer of the lesser curvature.

Thus in 3 of 6 cases operated on the liver was unduly movable and sagging downward. As this is 50 per cent. of the cases operated on the idea strongly suggested itself that ptosis of the liver may elude our methods of physical examination and be more frequent than has been supposed.

NEURASTHENIA.

This associated taint which has played so conspicuous a rôle as to give rise to the theory of Charcot and Bouvert, that it was the cause of gastroptosis, was not very infrequent in our series. The tendency of later observers seems to be to place very little weight on neurasthenia as the primary cause of abdominal ptosis. In 48 cases it was present in 22, or 45.8 per cent. The difficulty in obtaining accurate data as to the presence or absence of neurasthenia in dispensary practice is considerable. While it may be present in the same degree in the class of patients who present themselves at our dispensaries as in those seen in private practice, it is certain that its manifestations are not so pronounced as in those more well to do and highly strung. It should also be borne in mind that in a brief acquaintance with a walking patient it is not always easy to make a diagnosis of neurasthenia.

In cases of gastroptosis suffering with various functional disorders of the nervous system, a distinction must be made between these symptoms and true neurasthenia. The fact that gastroptosis does occur in a large proportion of cases without neurasthenia disproves the theory that the two are interdependent. It is much more likely that when they coexist they are merely concurrent manifestation of some constitutional weakness, be it congenital or acquired.

ANALYSIS OF THE GASTRIC CONTENTS.

The condition of the gastric contents after the ingestion of an Ewald test meal was most frequently one of hypoacidity. A certain proportion were approximately normal and hyperacidity appears to be uncommon Free hydrochloric acid was absent in 13 cases of 45 examined, or 29 per cent., and in 17 cases the free HCl was 10 or under. Thus in 66 per cent. the amount of free HCl was subnormal. In 9 cases the acid was approximately normal in amount. All of these were well-marked examples of the condition and of considerable duration. The figures given are in terms of decinormal soda hydroxid solution.

Six cases showed hyperacidity. Of these Case 59, a young woman, and Case 68, a man aged 45, were instances of primary gastroptosis with a strong neurotic tendency. Cases 22, 35 and 53 were men in early adult life, all decidedly neurasthenic with downward displacement of the pylorus and a considerable degree of general dilation. In Case 70 (a man aged 50) operation revealed a gastric ulcer. This was the only case with symptoms of organic lesion of the stomach. It will be seen that but two of the six cases with excess of hydrochloric acid were instances of primary gastroptosis.

TABLE OF HYDROCHLORIC ACID.

Free HCl absent	13;	average total acidity, 16
Free HCl 10 and under	17;	average total acidity, 52
Free HCl 11 to 25	9;	average total acidity, 47
Free HCl above 25	6;	average total acidity, 80

SYMPTOMS.

In those cases in which the dilation affected the pyloric extremity alone the subjective symptoms were those of motor insufficiency of a mild grade. Evidence of fermentation, as manifested by gaseous eructation, coming on an hour or so after meals, were observed in every case. Some degree of autointoxication was almost as constantly present. Attacks of frontal headache, accompanied by nausea following fatigue or indiscretions in diet and which were relieved by treatment directed to the stomach, occurred in 20 per cent. Pain in the epigastrium or upper abdomen was complained of in 50 per cent. Its character varied, but was most often described as dragging, and was most intense an hour or so after meals. Pain in the lumbar region was present in 25 per cent., vomiting in 16 per cent., and nausea in 12 per cent. Constipation was the rule and was decided in character in 60 per cent. A small proportion of the rest suffered from alternating diarrhea and constipation, and in one or two diarrhea alone occurred, which was relieved by lavage and by medicinal measures directed to control the fermentation.

In the cases of general dilatation with gastroptosis, the signs of impairment of motor power were much more pronounced, and it was here that the only instances of decided retention occurred. Two of the cases of vomiting were in men with marked general dilatation. Evidences of autointoxication were much more intense in this class of patients.

It has seemed to us that in these cases displacement of the stomach was the dominant factor in the production of subjective symptoms. Signs of intestinal disturbance were not intense in any of our cases. The constipation and diarrhea were moderate and easily controlled. With the exception of those cases in which the kidney was floating the dislocation and movability of that organ did not give physical discomfort.

A floating tenth rib, the stigma described by Stiller, was noted in only two of our series.

THE SPLASHING SOUND.

Our experience with this sign, if properly used and elicited, is that it is of value in determining a decrease in power of the stomach muscle, when obtained during the period of digestion; and of motor insufficiency when obtained at a period when the stomach should have emptied itself into the duodenum. In studying the relations of the splashing sound to atony, the patient should be under observation for a longer time than a dispensary service allows, consequently we have not been able to obtain data of any value in this connection.

THE URINE.

The urine was negative so far as routine examination is concerned. The average specific gravity was not above normal, arguing against any considerable degree of concentration as seen in severe cases of gastric motor insufficiency.

SEPARATION OF THE RECTI ABDOMINALIS.

This important sign, described by Webster, was noted in 17 of 46 cases examined for it, i. e., in 37 per cent. The amount of separation varied considerably, in some instances being only sufficient to admit the finger tips, in others the width of three or even four fingers. The cases in which the condition was observed were all females, of whom 11 had borne children and 6 were nulliparous.

The following case is of interest since it emphasizes the difficulty of arriving at any definite conclusion as to the etiology of abdominal ptoses.

R. H. Female. 35 years of age. White. Has born 13 children. Presents such diastasis of the recti muscles that the whole fist can be inserted between them in the umbilical region. In spite of this very decided relaxation of her abdominal walls, inflation showed that her stomach was in its normal position. Her right kidney was movable in the second degree.

CONDITION OF THE BLOOD.

Meinert, in his original paper, held that chlorosis was the cause of gastroptosis, but his views were refuted by Kelling, who showed that the two conditions had no direct etiologic connection. Our series bears out this conclusion, for only one of our cases suffered with chlorosis, while in the greater portion of the remaining the blood was normal, and the rest showed but a slight secondary anemia. The high color index in the following table speaks for itself in excluding chlorosis.

COLOR INDEX OF THE BLOOD.

Hemoglobin, 85 p. c. or over.....24.	Average color index, 0.95
Hemoglobin, 60 p. c. to 84 p. c... 20.	Average color index, 0.9
Hemoglobin, 35 p. c..... 1.	Average color index, 0.5

TREATMENT.

Discussion of methods of treatment would be out of place in a paper of this character. The experience, however, obtained in the observation of the series reported has impressed us with several facts that seem worthy of mention. Relief from symptoms of motor insufficiency may often be obtained by mechanical support of the pylorus. This statement applies as well to cases of general as to those of pyloric dilatation.

Systematic lavage is not indicated when mechanical support is applied, provided there is not decided retention or great alteration in function of the gastric mucous membrane. We have found it of advantage only (1) in cases of extreme atony and general dilatation with much retention, and (2) in cases in which, without dilatation, there is an excessive secretion of mucus.

Six of our cases have been operated on. The results will be reported in detail by the gentlemen who performed the operations. It may be permitted us to make brief mention of the character of the procedure in each case:

CASE 25.—Ventral suspension of the uterus, approximation of the recti muscles in the lower half of the abdomen, nephrorrhaphy.

CASE 54.—Suspension of the liver.

CASE 56.—Shortening of the gastro-hepatic omentum. (Beyea's operation.)

CASE 49.—Nephrorrhaphy, stitching the pylorus to the hilum of the liver.

CASE 52.—Stitching the pylorus to the hilum of the liver.

CASE 70.—Excision of gastric ulcer.

CONDITION, AGE AND SEX.

In our series there were 52 women (70.4 per cent.) and 18 men (30.6 per cent). Twenty-one of the women had borne children. It will be seen that 59 per cent. of the women were nulliparous. Very few of our dispensary cases are under 20 years of age. Consequently we have been unable to determine whether gastroptosis is frequent in childhood as claimed by Meinert. A great majority of our series came under observation while in the third, fourth and fifth decade. The youngest patient was a girl of 18 years, the oldest a man of 71.

TABLE OF AGES BY DECADES.

Under 20	1	51 to 60	3
20 to 30	24	61 to 70	1
31 to 40	18	Over 70	1
41 to 50	21		

CONCLUSIONS.

1. Gastroptosis is much more common than might be inferred from the meager reference made to it in a majority of the text-books on general medicine. In women showing symptoms of gastric atony its presence is almost constant. It is much less frequent in men.

2. The occurrence of gastroptosis is not confined to any particular age or class of individuals. There are no causative factors common to all cases, and no explanation of its etiology heretofore given is broad enough to be wholly satisfactory, if we except the theory of congenital predisposition, which is entirely hypothetical.

3. The position assumed by the stomach in all of our cases was vertical or subvertical. Total descent was not observed and probably is extremely rare. Some dilatation of the pyloric extremity was always present. When this dilatation affects the pyloric end alone it may perhaps safely be assumed that the dilatation is secondary to the descent of the pylorus. In general dilatation and gastroptosis it is probable that the displacement is secondary to the dilatation. The data in regard to the position of the stomach were obtained in every case by inflation with air through the stomach tube. The colon was inflated through the rectum.

4. The transverse colon invariably shared in the displacement, assumed the M or V shape, and when inflated by air was in close contact with the greater curvature of the stomach. The hepatic flexure may not be displaced or may sink to the level of the umbilicus. The splenic flexure lies behind the stomach and eludes demonstration.

5. The right kidney was movable in 60.9 per cent. of the cases. The left kidney rarely showed abnormal movability and the spleen in but one case. The fact that the liver was observed to be unduly movable and sagging downward in three of six cases operated on suggests that ptosis of this organ may elude our methods of physical examination and be more frequent than is usually supposed.

6. There is no condition of the gastric contents peculiar to gastroptosis. Absence or diminution of the free HCl is the rule. In a few cases the amount was normal. Hyperacidity was rare and usually occurred in cases where general dilatation existed, and when there was a strong neurotic taint.

7. There were no characteristic changes in the blood or urine.

8. The subjective symptoms were those of gastric motor insufficiency, and were of a mild grade in cases of primary ptosis, but more severe where general dilatation existed. Pain was present in the upper abdominal region in about half and in the lumbar region in a quarter of the cases.

9. The same causes that produce neurasthenia appear to favor the development of ptosis of the abdominal viscera. When the two conditions are established they probably react on each other deleteriously, but clinical evidence tends to contradict the theory previously widespread that they have a direct causative relation.

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DISCUSSION.

Dr. Allen A. Jones, Buffalo—This matter of gastroptosis is a very important one and has been very ably presented this afternoon. It has been my firm belief that many cases of this affection commence in early life, occurring particularly in those nervous, highly organized, restless children, with narrow thoraces, whose stomachs are filled most all the time, never empty except for one or two hours before breakfast. I speak here of the etiology of gastroptosis because our knowledge of it is so inadequate. In addition to the symptoms mentioned by Dr. Steele there are the circulatory ones, such as coldness of the hands, dizziness, vertigo, cerebral anemia and, as already pointed out, such disturbances as are due to disturbed circulation in the splanchnic area. In a paper read one year ago, but which I failed to publish, my conclusions were the same as others have given regarding the stomach in gastroptosis, that there is a delayed passage of food into the duodenum which is sometimes serious and leads to a dilatation. This dilatation occurs particularly toward the pyloric end of the stomach. Robinson of Chicago, not long ago, published a paper on this subject presenting the results of his studies and he made the statement that dilatation of the stomach in viceroptosis was due to the fact that the sheath of the superior mesenteric artery passing down over the duodenum made pressure on the duodenum and so caused a difficult onward passage of its contents causing dilatation of the stomach and duodenum. The results of a gastro-jejunostomy were admirable. In the consideration of enteroptosis the question of intra-abdominal pressure is important.

Dr. Charles G. Stockton, Buffalo—I believe that this condition of splanchnoptosis is more common than is generally supposed, and that it plays a part in the production of the neurasthenia that we so often see in the lymphatic type of women. Dr. Steele is to be congratulated on the good results he has obtained by surgical methods. Splanchnoptosis is a disease peculiar to those who walk in the upright position, and is a disturbance to which quadrupeds are not subject. It is true that the visceral displacements in the abdomen are not, as a rule, dependent on contraction of scar tissue, nor from the unusual weight of the stomach and other organs, although such conditions do occasionally have an unfavorable effect. As a rule, splanchnoptosis develops in those who have unusually fragile tissues which are lacking in inherent strength. Surgeons have found, in attempting to produce fixation of displaced organs, that there is difficulty in finding a sufficiency of strong tissue through which sutures may be placed.

Dr. Boardman Reed, Philadelphia—I wish to emphasize the great importance of making a correct diagnosis of this condition, for I am sure that it occurs in the practice of nearly every physician. Physicians should make a more careful examination of their patients in cases of obstinate constipation, neurasthenic disease, etc. As to the etiology of the trouble, it seems to me that not enough emphasis has been placed on the matter of dress. Dr. Jones has stated that he believes a great many of these instances arise in infancy; I have reached the same conclusion, for I have found the stomach as low as the umbilicus or lower in many young children. In women I frequently find the stomach as low down as it can go—in the pelvis, resting on the pelvic organs. The dress of women, especially the corset, favors the sinking of the stomach lower and lower, besides weakening the abdominal muscles by preventing exercise of them.

Dr. Fenton B. Turck, Chicago—There are several factors which may predispose to gastroptosis, and among them are the congenital conditions which Rosengert regards as reversion type, congenital deformity. There are certain predisposing factors which are more important than have been referred to to-day. I would especially emphasize the errors of living and disregard for personal hygiene early in life. The chief condition found associated is an atony of the stomach and a resulting toxemia. I have found that the filtered stomach contents withdrawn from the stomach in cases of gastroptosis with atony, when injected into animals, would show a greatly increased toxicity over normal stomach contents. The increase in the toxicity of the gastric contents is an important diagnostic indication of the lack of motor power. The resulting increase of bacterial growth which causes the formation of toxins in the stomach is responsible for many of the symptoms. The abdominal belt does not lift the stomach at all, as has been shown by a careful examination with the gyromele in connection with the *x*-rays. The skiagraph shows no change in location of the stomach when taken before and after the adjustment of the belt. The improved condition after the application of the abdominal support is due to the increase in the intra-abdominal pressure which increases the blood pressure, overcoming the splanchnic congestion. This also benefits the tone of the gastrointestinal musculature. Dietetic treatment, rest in bed and appropriate abdominal exercises are of the highest therapeutic value in connection with other treatment which I shall soon refer to. The benefits of operations in these cases may be largely due to the prolonged rest in bed which follows the operation, something like the Mitchell rest-cure treatment. The indications for treatment are not simply mechanical, but call for an increase in the tone of the muscular contractions so as to favor the ready passage of food through the pyloric orifice of the stomach. If the pyloric orifice is narrowed, causing obstruction, gastroenterostomy is indicated. I would emphasize the fact that we should endeavor to improve the splanchnic circulation, distribution of blood to the surface of the body. An increased elimination will result. If we should find that by the abdominal displacement there resulted kinking of the duodenum and obstruction, then I think an operation is rational. The most frequent pathologic condition in these cases of gastroptosis is lack of motor power of the stomach, due to atony, and if a dilatation occurs, it is usually a result of the atony. The low blood pressure, cold hands and feet, showing peripheral contraction of the arterioles, accounts for many of the neurasthenic symptoms, but we must admit that neurasthenia may act as a cause of gastroptosis, as well as the result. It is a significant fact that when atony of the stomach is overcome, and the disturbance of circulation restored, the neurasthenic symptoms disappear. Disturbance of the splanchnic circulation is undoubtedly an important factor in the production, as well as the result of gastroptosis. So long as this condition exists, it interferes with the nutrition, and the lax condition resulting favors the downward displacement. The indications for treatment of gastroptosis, then, are: 1, increase the peristaltic activity of the stomach. This prevents the toxic condition; 2, restore the splanchnic circulation by reducing the congestion of the abdominal vessels; 3, increase the strength of the abdominal walls. This is accomplished chiefly by suitable abdominal exercises; 4, operation. In some cases this may be the only plan that can be adopted with any chance of success. The use of pneumatic gymnastics of the stomach, as employed in Chicago, I think of great value. In stomach gymnastics it has been found that when compressed air is introduced into the stomach through a tube and then allowed to escape (repeating this several times in succession) it causes a compensatory hypertrophy of the muscular walls of the stomach. Air distends the organ uniformly in all directions. It is compressible, and, while it stretches the stomach walls, it permits contraction of the stomach muscles, isometric contractions resulting. Peristalsis is increased by this method without fatigue. The air can be heated before it is introduced by passing it through water at a temperature of 55 C. (131 F.). It passes through the afferent canal of the double tube, distends the entire stomach, the circulation is stimulated by the heat and the air passes out through the efferent canal of the double tube. As a supplementary method of exercise to the abdominal viscera, I have found my exerciser of great benefit. This is an extension exercise for the abdominal muscles. The very best abdominal support is strong abdominal muscles.

Dr. Frank Billings, Chicago—There is no doubt that many cases of ptosis of the stomach and colon are congenital. As time goes on more cases are found on account of the dress of woman, and more cases are seen in women than in men. In many cases of the disease, until something of a general kind occurs, such as a neurasthenia, the patients do not feel anything abnormal. The point that I wish to make is that the

neurasthenia is primary, in many cases producing general myasthenia. Not until the muscular power of the stomach fails, from general causes, does the patient suffer.

DR. J. DUTTON STEELE, Philadelphia—I agree with everything that has been stated with regard to the etiology. I can not take issue with what Dr. Turck has stated for I have never been able to see how gastric motor insufficiency from gastroptosis is different from an insufficiency from any other cause. I think it is very important that every physician should outline the stomach in all patients who come to him with symptoms of such a condition. It may influence the kind of treatment employed.

THE PURSE-STRING SUTURE IN GASTRORRHAPHY FOR GUNSHOT WOUNDS.—AN EXPERIMENTAL CONTRIBUTION.*

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Professor of Surgery, Rush Medical College, in Affiliation with the University of Chicago.
CHICAGO.

One of the important elements of success in the treatment of gunshot and stab wounds of the stomach is time. Unnecessary time lost in finding and suturing the visceral wounds is a source of immediate danger to life which should be eliminated as far as possible by means which enable the surgeon to make a quick and correct diagnosis and by resorting to a method of suturing which closes the wound safely and securely with the least possible delay and which leaves it in a condition most favorable for speedy definitive healing. It is well known that small penetrating wounds of the stomach often heal without operative intervention. By contraction and relative displacement of the different muscular layers of the thick wall of the stomach the tubular wound is contracted and obstructed sufficiently to prevent leakage until the canal on the peritoneal side becomes hermetically sealed by firm plastic adhesives which prevent extravasation during the time required for the repair of the visceral wound. If in larger wounds of the stomach the same degree of occlusion can be accomplished by the simplest mechanical means then such a procedure should take the place of the more time-consuming methods of suturing now in general use. This can be accomplished with the purse-string suture. (To Dr. Dawbarn of New York belongs the credit of having first suggested the use of the purse-string suture in the treatment of small perforations of the gastrointestinal canal.)

In gunshot injuries the defect in the stomach wall is circular, the wound margins contused, hence the deep sutures could at best furnish a barrier to the escape of stomach contents only for a short time, as their hold in the necrosed tissues would be imperfect and only of brief duration. In small, round wounds the circular suture is the one which will bring and hold together in permanent, uninterrupted contact the serous surfaces in the most efficient manner. In the treatment of gunshot wounds of the stomach the principal object of suturing should be to close the perforation in such a way as to guard securely against extravasation and at the same time approximate and hold in apposition a maximum surface of intact healthy peritoneum. This is accomplished by making a cone of the injured part of the stomach with the apex corresponding with the wound directed toward the lumen of the organ. The purse-string suture applied in a manner that will be described in the experimental part of this paper, will maintain this cone until the healing of the visceral wound has advanced sufficiently to render further mechanical support superfluous. The cone on the mucous side of the stomach acts in the manner of a valve, which in itself is an effective barrier against the escape of stomach contents, while the circular suture constitutes almost an absolute safeguard against leakage and brings in contact the serous surfaces in the interior of the cone. For wounds of the posterior wall of the stomach I recommend a purse-string suture of heavy durable catgut to be applied through the anterior wound. The anterior wound is closed with a purse-string suture of silk of medium size applied to the base of the cone on the serous side. It is desirable that the circular suture should cause no necrosis of the included tissues. By using an absorbable suture in closing the posterior wound in the interior of the stomach this object is gained, as only a small part of the thickness of the stomach wall is subjected to pressure, and the tension caused by the ligature is gradually lessened by softening of its material and is entirely removed by the absorption and digestion of the ligature in less than three weeks.

The wound of the posterior wall of the stomach is found and made accessible by inserting through the anterior wound a grasping forceps with which the posterior wall is seized at a point where, from the course of the bullet, the second wound is supposed to be located. Through a wound large enough to admit the index finger the greater part of the posterior wall of the stomach can be made accessible to sight and touch, and the perforation can be located and closed with the purse-string suture in a few moments. In doubtful cases inflation of the stomach should invariably be practiced for the detection of a second and possibly a third perforation.

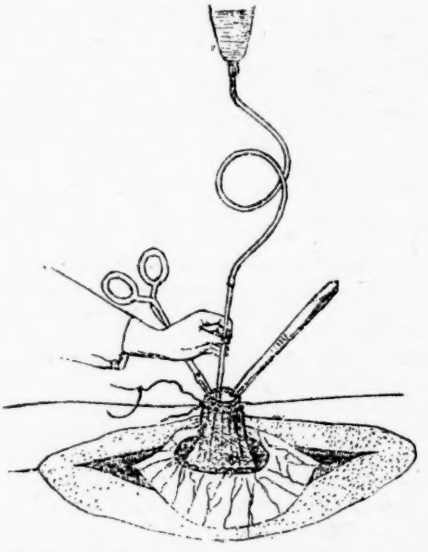

Fig. 1.—Case 4. Showing irrigation of bursa omentalis through the opening in the posterior wall of the stomach.

EXPERIMENTS.

The following experiments were made for the purpose of demonstrating the practical utility of the purse-string suture in the treatment of perforating wounds of the stomach.

CASE 1.—Dec. 23, 1901, a white and brown medium-sized male dog was chloroformed and through a median incision three inches in length the anterior surface of the stomach was exposed and brought forward into the wound. A vertical visceral incision was made an inch in length about one inch above the curvature and half-way between the cardiac and

* Presented to the Surgical Section of the British Medical Association, Manchester, July 30, 1902.

pylorie ends. Through this opening the posterior wall was seized with a forceps and drawn into the wound in the form of a cone. Around the base of this cone a purse-string catgut No. 3 ligature was applied, taking four seizures which included all the tunics except the peritoneum. The apex of the cone was then amputated, making a perforation large enough to insert the tip of the little finger. The anterior wound was next closed by taking five seizures half an inch from the wound margins with a needle armed with medium-sized silk which included all of the coats except the mucous membrane. Before the circular suture was tied the margins of the wound were deeply inverted in order to secure apposition of large serous surfaces. The abdominal incision was closed with four deep silk sutures and three superficial sutures of fine silk and the wound sealed with collodion. The dog was fed as usual,

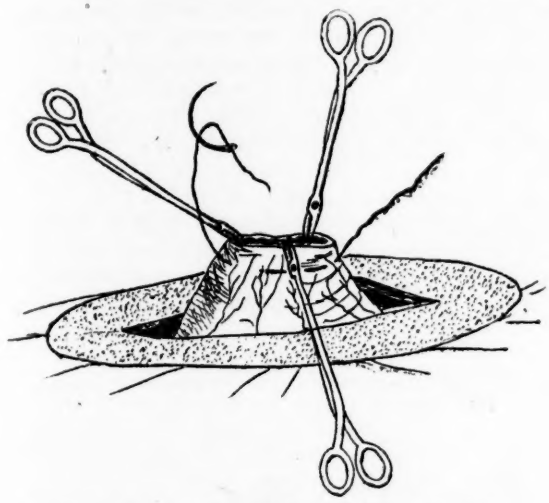

Fig. 2.—Case 4. Purse-string silk suture in place.

took his food with a relish and at no time manifested any untoward symptoms.

Postmortem.—The dog was killed five days later, when the following conditions were found: External wound firmly united, no peritonitis. Anterior wound of stomach healed, a narrow strip of omentum adherent over the encysted silk purse-string suture. Posterior wall of stomach free and wound healed. On opening the stomach small granulating points indicated the location of the wounds.

Case 2.—Small brown poodle dog. Operation the same as in the preceding case only with this difference, that the wound in the posterior wall made by the circular excision was large

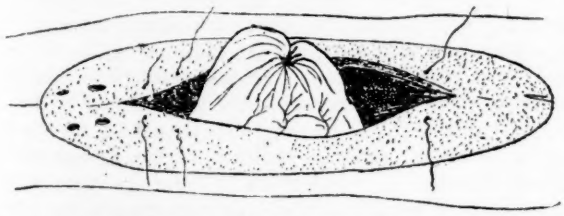

Fig. 3.—Showing result of purse-string silk suture closing anterior wound in stomach wall.

enough to insert three fingers; consequently, more seizures were made in applying the catgut purse-string suture, and the ligature was applied after the wound was made. Before tying the ligature the peritoneum of the wound margin was seized with forceps at two opposite points and traction made so as to include as much as possible of it in the grasp of the circular suture. In applying the anterior suture the seizures, four in number, were taken three-quarters of an inch from the margins of the visceral incision and with forceps the peritoneum was pushed as far as possible in the direction of the cavity of the stomach with the same object in view. The dog recovered without any untoward symptoms notwithstanding he was fed on the coarsest kind of food from the time of operation until he was killed, twenty days later.

Postmortem.—External wound firmly united. Firm adhesion over a point corresponding with the location of the underlying encysted silk suture. Posterior wound healed perfectly without any external adhesions. The stomach was removed and opened at the lesser curvature. The mucous membrane over the entire surface of the stomach was normal and it was exceedingly difficult to locate the minute scars in its folds. The catgut ligature had disappeared and the cone was reduced to the level of the surrounding mucous membrane. The silk ligature was firmly encapsulated.

Case 3.—Small black bitch. Anterior and posterior wounds were made before the ligatures were applied. The external incision was closed by six deep silk sutures and sealed as usual with collodion. The experiment was made January 3 and the dog killed on the 31st with chloroform.

Postmortem.—Anterior surface of the stomach smooth and only a very circumscribed omental adhesion over the silk suture. The stomach was removed and no mark could be discovered on the posterior surface to indicate the location of the perforation. On opening the stomach the exact location of the anterior wound could only be determined by a circumscribed thickening of the wall, covered by normal mucous membrane, which was thrown into radiate minute folds the center of which corresponded with the exact location of the wound. The posterior wound healed in the same ideal manner.

Case 4.—Small brown male dog. In this experiment the feasibility of flushing the retrogastric space was demonstrated after making wounds in the anterior and posterior walls of the stomach as large as wounds inflicted by large-caliber bullets. The nozzle of the irrigator was firmly fixed in the posterior wound by tying the purse-string in the form of a loop over it (as shown in the illustration). After the irrigation the nozzle was removed and the suture tied in the usual manner. Anterior wound closed with circular silk suture. The dog was killed four weeks later.

Postmortem.—Findings the same as in the preceding experiment.

REMARKS.

The above experiments demonstrate the safety of the circular suture in the treatment of gunshot and other penetrating wounds of the stomach. All of the animals operated on in this manner recovered, and the repair of the injuries as shown by the specimens was ideal. The absence of adhesions over the posterior wound and their constant presence over the anterior wound indicate that the presence of the silk ligature and the needle punctures were the causes of the circumscribed plastic peritonitis which produced them. In none of the specimens could any indications be found of necrosis of any of the inverted tissues and included in part by the circular suture.

In the course of three weeks the continuity of the mucosa at the seat of the injury was completely restored. The result of these experiments have convinced me that the circular suture compares favorably with the methods of suturing in general use and besides has the great advantages over them in the ease of its application and the saving of much valuable time.

Suturing of the posterior wound by partial eversion of the stomach through the anterior obviates unnecessary handling of the organ, and the necessity of interfering with the vascular supply incident to exposure of the posterior wound as is done by the methods now generally practiced. If extravasation into the lesser peritoneal cavity has taken place, flushing through the posterior wound and a vertical slit in the gastrocolic ligament and gauze drainage through the latter are invariably indicated.

When a urinary antiseptic is needed try lithium benzoate. It is eliminated through the kidneys, increases the flow of urine and sedates the urinary tract.

THE PURPOSES OF URETER-CATHETERISM—PRESENTATION OF URETER-CYSTOSCOPE FOR MALE AND FEMALE.*

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ST. LOUIS.

The purposes of ureter-catheterism in connection with the cystoscope are twofold: For diagnosis and for treatment.

DIAGNOSIS.

A. To locate the origin of pus, blood, tubercular products or bacilli, the various pyogenic infections, abnormally desquamated epithelium, etc., as to whether they come from (*a*) the bladder, (*b*) the right ureter, (*c*) the left ureter, (*d*) the right kidney (*e*) the left kidney, (*f*) the right or (*g*) the left peri-renal space and communicating with the corresponding kidney or ureter.

B. To recognize and locate obstructive conditions in the right or left ureter, from (*a*) stricture, (*b*) stone, (*c*) adjacent tumors, (*d*) bend or kink in the ureter from movable or dislocated kidney, (*e*) valvular junction of ureter and pelvis.

C. To determine (*a*) the presence of two kidneys, (*b*) if only one, which is absent.

D. To determine the number of ureters present.

E. To determine the functional activity of each kidney separately and relatively, with respect to its excretion of urea, albumin, quantity of urine, the specific gravity, etc.

F. To determine the size and capacity of each kidney-pelvis, with respect to (*a*) hydronephrosis, (*b*) pyonephrosis, (*c*) total obliteration of secreting kidney tissue.

G. If there be kidney disease present, to determine (*a*) if only one kidney is affected or both, (*b*) if only one, which is the affected one, (*c*) if both, which is the one more affected, (*d*) if removal of the worse one be advisable, is the other able to carry on kidney functionation sufficiently; (*e*) if removal of one be advisable, and the other is capable of supporting life, will the operation remove the infection from the body, removing possibility of dissemination or recontamination?

TREATMENT.

A. To enlarge narrowings or strictures at (*a*) the ureter openings, or (*b*) in the channel of the ureters. By facilitating drainage through the increased ureter caliber, thus obtained, to assist in the improvement of pyelitis, or pyonephrosis, unilateral or bilateral.

B. To irrigate and medicate (*a*) the ureters; (*b*) the kidney pelves of one or both sides.

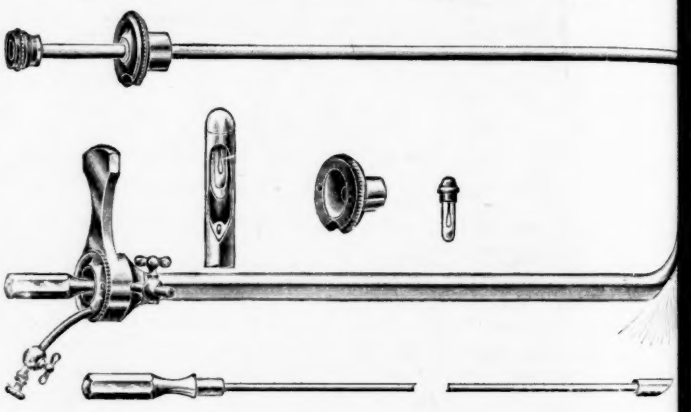
C. To assist, by anesthetizing and enlarging the ureter opening, the passage through it of a calculus or a plug of pus, blood, etc.

To accomplish the purposes above described one must have an instrument that effects ureter catheterization easily and quickly without causing trouble to the patient or bad after-effects. I believe I have accomplished this result in the ureter-cystoscopes for male and female which I herewith present. The instrument consists, as you see, of a straight tube through which one looks directly at the object without the intervention of lenses and without the accompaniments of refraction, absorption of light, etc. The illumination is made by a cold electric lamp, which allows the use of the cystoscope in the bladder without introducing water and without burning the patient. This obviates the difficulties coming from the clouding of water, since air is used for distending the bladder. Air, of course, can not be clouded by the inflowing of blood or pus in ways that destroy the transparency of a liquid vehicle.

With cocain anesthesia the process of ureter catheterization is easily accomplished in either the male or the female with this instrument. I have used it upwards of three dozen times this spring, mostly in my office, allowing the patients to get up and leave immediately afterward and go about their business.

It has enabled me to accomplish something else which I believe will be very valuable in cases of pyelitis: that is, washing out the kidney pelvis in chronic inflammation of that organ, either unilateral or bilateral. I have done it in both the male and the female in a number of instances. In three cases which were the subject of chronic unilateral pyelitis I washed out the affected kidney pelvis with marked improvement and no detriment.

The advantages in favor of ureter-catheterism as compared with segregation are very great. In the matter of diagnosis, if one uses the segregator and gets tuberculous urine, for instance, from one side, and clear urine from the other side, he is still unable to say just



where the tuberculous urine comes from—whether it comes from the bladder on that side or the ureter on that side, or the kidney pelvis on that side; whereas, if he catheterizes both ureters and gets tuberculous urine from one side, he knows that it does not come from the bladder on that side. If he runs the catheter up to the kidney pelvis he knows that it does not come from the ureter, but does come from the kidney pelvis, or kidney itself on that side. So that the segregation method is a very inferior method, in my estimation, as compared with ureter-catheterism. Of course, one can not do anything in the way of treatment of the ureters or kidney pelves by the use of the segregator, such as he can do by the use of ureter catheterizing methods.

One case illustrating another advantage of ureter catheterizing over segregation is that in which I put the ureter catheter about four inches into the left ureter of a male patient. At first nothing drained, but on strong aspiration with a syringe I was able to pump out a teaspoonful of pure pus that was not draining through the ureter, nor would it drain through the ureter catheter except under the influence of strong aspiration. This determined, of course, that there was no drainage of urine from that kidney—that there was an infected pus sac, which proved to be the case in our cutting down into the left lumbar region and finding a collection of more than a pint of thick pus and a stone

* Read at the meeting of the Missouri State Medical Association.

in the kidney pelvis on that side. The segregator, in this case, even if it had obtained the purulent urine from the left side and clear urine from the right side, would not have made the positive indication for operation that was made by the finding of a large collection of pus by the ureter catheter.

While the instrument illustrated does not afford the ability to catheterize both ureters at the same time, I have one which does accomplish that purpose, that is, the catheterism of both ureters at the same sitting, the drainage of both ureters coincidently, allowing of comparison as to, not only the quality of urine, but the quantity as furnished by the two kidneys at the same time and under the same general influences.

627 Century Building.

THE ROLE OF SYPHILIS AS A CAUSATIVE FACTOR IN THE PRODUCTION OF PYORRHEA ALVEOLARIS.

A. H. OHMANN-DUMESNIL, M.D.
ST. LOUIS.

Pyorrhea alveolaris, variously known as Riggs' disease, Fauchard's disease, and by some other names, remains to this day a *bete noir* to dentists. This is mainly due to the fact that they can not cure it, and the best methods at their command to-day lie in prosthetic dentistry. Without desiring to pose as a carping critic, the method is bad and is surely a *petitio in forma pauperis* to him who is able to observe and to reason.

In this trouble, as well as in others, it is necessary to determine the cause and then properly treat it or eliminate it, and it is to this very question of cause that the present is written. He who has had an opportunity to observe a number of cases of syphilis has not failed to observe that a peculiar manifestation shows itself at first in connection with the lower canine teeth. This will then spread to the incisors and at times to the first bicuspids. If the examination be pushed a little farther the gum covering the tooth root will be found to be reddened and angry-looking, and if it be pressed some pain is elicited and pus is found to exude apparently from the alveolar process. This it is which has led dentists to regard it as a purulent destruction of the alveolar, because drawing the tooth did not reveal any marked alteration of the bone during the earlier period of the disease, but rather a marked collection of pus in the alveolar cavity.

As a natural consequence it was found much easier to clean out the alveolar cavities, and patients were advised to have all the affected teeth withdrawn and replaced by a bridge, which is certainly more profitable to the dentist while more inconvenient to the patient. As an example of prosthetic dentistry it is certainly a success, but as a means of cure it is anything but such. The object of this paper, however, lies without the province of stomatology, the only object being to find and determine one of the causes of pyorrhea alveolaris. I was attracted by the name at first, and endeavored to familiarize myself with the appearance of the disease. Later on, I carefully examined every case of syphilis coming under my observation, as I do now, and I noted the facility with which pus could be made to exude from the alveoli by simple pressure on the gums. This led to a further search, which led to the discovery of the same condition in individuals who were suffering from gout and other so-called dyscrasia. The inevitable conclusion would be that these general conditions were the cause of the local symptoms observed. In other words, the trouble of the alveolar process was nothing but a local indication of some general condition which existed and which should be corrected in addition to the elimination of the local trouble which manifested itself.

It was then that a more careful examination of the teeth of syphilitics was entered into by myself, and the result was the finding of a comparatively large number of cases of pyorrhea alveolaris. Upon request a number of dentists submitted cases to me. These were very carefully questioned, and about two-thirds gave a history of syphilis. A sufficient number existed to classify them as cases of syphilis *ignorée*, or as old cases of tertiary syphilis in which this was the only bone symptom to be observed. However this may be, the subsequent treatment showed that the etiology had been correctly established and, as a natural consequence, the treatment was successful. This, however, is not to the purpose.

In view of the fact that the few observations made by the writer have shown a greater or less interdependence between syphilis and pyorrhea alveolaris, would it not be a useful matter for every one to pay more attention to the dental trouble? To say the least, is it not a curious coincidence that Riggs' disease should be observed in so many cases of secondary syphilis as well as the late form of this period? It must also be remarked that pyorrhea alveolaris occurs as a parasyphilitic phenomenon. When we take into consideration that the teeth are observed to be all sound before syphilitic infection, and that after the disease has manifested itself it shows its presence; and, further, when systemic as well as local treatment directed to the syphilis causes both to disappear we are certainly justified in concluding that lues is a factor in the production of Riggs' disease. We are unfortunately prevented from making experimental inoculations, or the matter could be definitely settled by inoculating the pus of the pyorrhea in a subject who had never contracted syphilis. Of course, there would remain the possibility of producing nothing but a purulent infection and not a chancre.

The object of the present paper has been to call the attention of syphilologists to the point announced in the title, and observation will, beyond all doubt, lead to a number of valuable ideas and the elaboration of methods, not only for the treatment, but for the prevention as well of this most distressing disease of the teeth. It is for conservatism that we are ever striving, not for radical destruction, and there is no doubt whatever that a little care and study will enable us to save many valuable teeth which are being daily sacrificed on account of a confessed inability to successfully treat the condition known as pyorrhea alveolaris. I am sure no one will more highly appreciate a successful method than dentists, no matter how anxious they may be to construct bridges for their patients.

New Instruments.

AN IMPROVED ASEPTIC ETHERIZING INHALER.

C. FONTAINE MAURY LEIDY, M.D.
PHILADELPHIA.

This cone consists of two parts: The metallic cone, with a depression in the rim of the larger end, or base, to fit snugly over the bridge of the nose (Fig. 1, A) and a brass pretzel-shaped clamp (B) which holds the napkin or towel in position. Both parts are indestructible and can not be injured in any way by heat. The cone has two parallel indentations on either side, which hold the clamp in position as it springs into place.

Place the center of a square piece of gauze, napkin or towel over the end of the cone, allowing the loose ends to completely cover the outside surface. These ends are then tucked snugly up into the larger opening, as the fingers point in Fig.

Figure 1.

1. This is done with the entire free ends, the external surface of the cone now being completely covered by the napkin or towel. The brass pretzel-shaped clamp is then inserted and pressed up toward the smaller end of the cone, until it springs

Figure 2.

into place, and is clamped there by the indentations, which protrude inward as shown in Fig. 2, by the pointing fingers, This inhaler is now ready for use, exactly as seen in Fig. 2.

If the napkin or towel retains this position without support, the pretzel-shaped clamp may be entirely dispensed with. This is often the case with a heavy towel. Ether or chloroform may be used and poured into the larger opening, which fits over the face, or poured over the smaller end externally, which is covered by the one thickness, the center of the towel. Care must be taken not to force the towel too tightly into the cone, as this would prevent the entrance of air, which is regulated by placing the palm of the hand over the smaller end while the cone is over the patient's face or by placing a folded towel over this end when etherizing the patient. The cone is 3½ inches high, base 4½ inches by 3. The smaller end is 3 inches by 2½. The edges are wired with a small wire, for comfort and safety. The size is immaterial, but this size I find most useful for general work. The towel is changed within a minute's notice, should the discharges from the patient make it unfit for use. The cone can be purchased for less than one dollar, which is more reasonable than any other inhaler in the market. These points, with its durability, make it the simplest and most useful etherizing cone, especially in the clinic where many cases are anesthetized every day.

900 Pine Street.

URETHRAL DILATOR AND IRRIGATOR.

WALTER E. M. RANCHOUS, M.D.
COLUMBUS, OHIO.

The instrument is composed of two blades (*a* and *b*), a spring and a set screw. The blade, *a*, is a hollow cylinder with perforations at the distal end extending two inches back. This blade when detached at *c*, can be attached to a percolator at *d*, and used for irrigating purposes. The blade *b*, or hood, is of horseshoe shape, fitting neatly over the cylindrical blade, *a*, and when attached at *c* acts as a divulser, scissors fashion. The spring and set screw serve to hold the blades together at all times, thus making the instrument easy for introduction.

When designing the instrument, the most important use of it, in mind, was for posterior urethral dilatation and irrigation, in gonorrheal infection of the mucous membrane of that portion of the urethra. With the anatomic structure of the urethra in mind, you will see at a glance that since the prostatic portion of the urethra is of horseshoe shape, and also the widest and most dilatable part of the canal, and since the germs form colonies along the verumontanum, in the prostatic sinuses where the orifices of the prostatic ducts make their exit into the urethra, this instrument can very readily be used to dilate the canal and compress the tissues from behind forward, thus extracting the pus and germs from these ducts. At the same time a thorough irrigation can be had by causing the fluid to flow round the mouths of the ejaculatory ducts and the pocularis sinus. In the constricted or membranous portion of the canal, it is also of great use in dilating and irrigating, by making pressure over Cowper's glands and along the tract of their ducts, thus enabling you to thoroughly medicate around their orifices.

I have used the instrument successfully in the above-named conditions, and in offering it to the physician I feel that if given a trial it will aid him in treating his cases of posterior urethral gonorrheal infection that cause him so much anxiety.

1273 North High Street.

Chlorosis, Marriage and Orchitic Extract.—Dr. W. Dufougeré says that chlorosis is due to a self-intoxication of menstrual origin, and to accumulation in the blood of toxic principles which are not destroyed by the internal secretion of the ovary. By re-establishing this internal secretion chlorosis is caused to disappear. Marriage influences this secretion and restores it if it has ceased. This re-establishment of the secretion is due to the absorption during coitus of a certain specific principle which acts directly on the ovary, and stimulates it out of its torpor. Chlorosis, therefore, so far from being an impediment to marriage, is quite the reverse. The ingestion of "orchitic liquid" by chlorotics will also establish this internal secretion. Its therapeutic action is explained by its physiologic character, and agrees perfectly with the effect of "marriage" on chlorosis.—Abstract from *Gazette méd. de Nantes.*

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THE NATURE OF TYPHOID FEVER.

The recent successful bacteriologic studies of the blood in typhoid fever have given us such results that some of the older conceptions of the nature of this disease must be remodeled. It appears from these investigations, of which there is now at hand a goodly number from various places, that bacilli may be cultivated from the blood in more than 80 per cent. of the cases and that the earlier in the disease the examination is made the greater the frequency of bacilli in the blood.

This perhaps at first somewhat unexpected turn of events is largely due to modifications in the technic employed. In the earlier part of the bacteriologic study of typhoid fever only small quantities of blood were used, and generally the inoculations were made directly on solid media or in small quantities of broth. Such small quantities of blood—at most a few drops—might not happen to contain viable bacilli, and in the next place it has been thought that the blood was not sufficiently diluted to interfere with or suspend the bactericidal action that it has on typhoid bacilli *in vitro*. In all the more recent work of this kind larger quantities of blood are taken directly from some vein, usually at the elbow, and mixed with large quantities of media. Liquid media have been employed by most of the workers, but others, like Schottmüller,[1] who has done a great deal of work in this line and examined in this way between one and two hundred cases, mix the blood directly with melted agar at a temperature of 45 C., which is then poured into plates. Schottmüller believes this method advantageous because it gives a clearer idea of the number of bacteria present and permits of a more ready recognition of contaminations. At the same time it would seem that the slowness with which the colonies spring up in many cases might be a disadvantage. He finds further that a dilution of the blood in the proportion of one to three is sufficient to yield colonies of bacilli when present. The puncture of veins for the purpose of withdrawing blood is not a very painful procedure and on the whole free from risk when done under usual aseptic conditions. Schottmüller has cultivated the bacilli from the blood as early as the second day of the fever, before the appearance of specific agglutinins, and on several occasions within the first twenty-four hours of relapses after two to three weeks of normal temperature. During the acme of the disease bacilli are numerous in the blood, but when the fever subsides bacilli are no longer demonstrable. It seems, also, that at least many of the ephemeral rises of temperature in the course of convalescence from typhoid fever are associated with a short reappearance of bacilli in the blood. Schottmüller has found further, that the number of colonies developing on the plates of blood mixed with agar stand in a certain relation to the height of the fever and the severity of the cases, so that in addition to its evident diagnostic value the method also has prognostic significance.

Now the early and practically constant presence of typhoid bacilli in the blood in typhoid fever, and the evident relationship between the number of bacilli present and the severity of the symptoms indicate that the whole disease is dominated, so to speak, by this bacillemia. Formerly it was taught, and this teaching is still largely current. that in typhoid fever the essential point was the localization of the bacilli in the lymphatic apparatus of the intestines, and multiplying there they eventually made their way into the blood in relatively small numbers, more stress being laid on the absorption of toxins. But the occurrence of typhoid fever without intestinal lesions has shown already that these lesions are in reality not essential; furthermore, their extent and distribution are not proportionate to the severity of the disease; and now the results of bacteriologic studies of the blood seem to make it clear that in typhoid fever bacteriemia plays a most prominent rôle. Schottmüller suggests that the bacilli, as a rule, enter by way of the intestines, with or without evident lesions, and that the incubation period corresponds to the time required for the bacilli to pass from the intestines through the mesenteric glands into the blood. He also believes that many of the intestinal lymphatic lesions are the result, not of primary invasion from the intestinal tract, but of hematogenous invasion, and in favor of this he urges the sudden and uniform relighting in many places of the process of the case of relapses. Be this as it may, the conception of typhoid fever as a bacteriemia surely will lead to less importance being given to the intestinal treatment of typhoid fever than in the past.

Finally, mention should be made of the fact that since the introduction of bacteriologic examination of typhoid blood, it has been made clear that in the past typhoid fever has been made to stand for various related yet distinct infections caused by the so-called paratyphoid organisms. On the whole, it seems that the well-trodden field of typhoid fever still contains unexplored regions that will yield rich treasures to the clinician working with modern laboratory methods.

1. Münch. med. Wochenschr., 1902, xlix, 1562-1565.

ETIOLOGY AND PROPHYLAXIS OF COLDS.

The word cold is probably the most used and the least understood word in modern medical practice. At this season of the year there is scarcely an ailment into whose etiology the taking of cold is not supposed to enter. Rheumatism, rhinitis, acute nephritis, tonsil-

litis, catarrhal choledochitis, pneumonia, gastritis, pharyngitis, pleurisy and occasionally even metritis and oöphoritis are attributed to cold. It is evident that there is concealed behind the expression a multiplicity of pathogenetic processes. As in all cases where a word is employed with a very wide meaning it is reasonably sure that its use gives a presumption of knowledge which does not really exist. Without the handy expression, "You have taken cold," which may mean nearly everything and therefore means next to nothing, to cloak ignorance of the real etiologic process at work, there would be much more careful search for the real causes of illness and a better understanding of the probable methods of prophylaxis that would lessen the number even of the minor ailments which now masquerade under the ample mantle of the word "cold."

The most familiar forms of colds are those of the respiratory passages. They are not invariably due to extreme cold, or even to considerable changes of temperature. The inhabitants of the higher, colder altitudes of Switzerland are much less subject to colds than their compatriots at lower levels. The best climate for most consumptives with tendencies to recurring catarrhal exacerbations is in the cold, rather rarefied air of somewhat elevated places. This has been the experience in this country as well as in the Alps. Our Canadian neighbors in their colder climate do not suffer as much from cold as do our own population, especially those living in crowded centers, for it is well recognized now that colds are much more frequent in our large cities than in country places. This is probably on account of the modern overheated buildings. Nansen remained for two years in the bitterly cold Arctic regions without ever suffering from a cold, and had not returned to city life for more than a week before he himself and several of his companions were confined to their rooms with catarrhal colds of the grippe type. Our own polar explorers have had similar experiences. It is not low temperature, then, that causes colds, but something intimately connected with the crowding together of many people.

There is a well-grounded impression that has been gaining vogue in recent years that the cause of colds is usually some form of microbic invasion. Already most cases of tonsillitis are frankly conceded to be of bacterial origin. Pneumonia, in the old days considered to be cold on the chest, is now referred to the pneumococcus. Rheumatism, for so long looked on as surely due to dampness and exposure, seems now to be definitely established as an acute infectious disease. There are other reasons for thinking colds due to invading bacteria. Tyndall pointed out over twenty years ago that the higher regions of Switzerland are practically free from microbes. Hence the absence of catarrhal affections in the Alps. The New York Board of Health in a recent bulletin announced that while there are many thousands of bacteria present in a cubic foot of air in the crowded tenement-house districts of the lower East Side, there are but a few scattered micro-organisms in the same quantity of air from the wealthy, sparsely-populated residential quarter between 60th and 70th streets east of Fifth avenue. It is well recognized that inflammatory processes of mucous membranes are much more frequent among the poor than among the well-to-do, and this rarity of microbic flora in the air they breathe is at least one of the factors that accounts for the lesser incidence of colds.

It would seem, then, that the direct exciting cause of colds is not simply exposure to cold drafts, but to microbe-laden air. External cold, by disturbing circulatory conditions, especially by inducing congestion, is a predisposing cause. Head pointed out that counter irritation of certain parts of the skin produces sympathetic nervous and circulatory conditions in underlying organs. This vasomotor interference undoubtedly has its effect in preparing the soil for bacteria. Local ischemia lowers resistive vitality. The prophylaxis of colds, then, consists in the avoidance of impure air as well as the avoidance of exposure. The healthy react well and so resist invasion. The delicate have mucous membranes whose protective mechanism of reaction may be easily put out of order. For these the avoidance of crowded halls, of theaters, of large crowded stores, and, as far as possible, of crowded cars, must be the rule if they wish to escape their winter colds. It is well known now how susceptible to catarrhal complications tuberculous patients are under such exposure. Even the vigorous become susceptible, however, at times of fatigue or when through worry or emotional strain the nervous system is overborne and incapable of reaction, or when the individual is temporarily weakened by irregularities of diet or by some already existent affection. In a word, the etiology of a cold is not some mysterious disturbance of health due to weather conditions, but nearly always an acute infection, often somewhat contagious, and its prophylaxis will be best assured by a study of the conditions of lowered resistance under which infection usually takes place.

SCARLATINAL STREPTOCOCCUS SERUM IN SCARLATINA.

In the last issue[1] of THE JOURNAL occurs a full extract of Moser's recent report of his work on the treatment of severe cases of scarlet fever with a serum obtained from horses immunized with cultures of streptococci isolated from the blood of fatal cases of scarlatina. Moser assumes that the streptococci so commonly associated with scarlet fever, especially in severe and fatal cases, differ sufficiently from other streptococci to warrant the effort at manufacture of a special serum for therapeutic purposes with the special streptococci of scarlatina.

The use of ordinary streptococcus serum made by Marmorek not having any material influence on the course of severe scarlatina appeared to Moser to be an ad-

1. November 1, page 1149.

ditional reason for this attempt. Hence horses were immunized with mixtures of the cultures of streptococci obtained from fatal cases of scarlet fever, and the serum thus obtained was used in severe cases of the disease. Moser finds evidence of the efficacy of this serum in the figures that result from the comparison of the mortality rate of scarlet fever in the other hospitals in Vienna in 1901 (13.09 per cent.) with the mortality rate in his hospital since the beginning of the serum injections in 1900 (8.99 per cent.), and this in spite of the fact that the severe cases were freely admitted, the less severe cases being referred to other hospitals. Furthermore, he reports that the cases treated with the serum show early signs of improvement in the general condition and also in many of the severe local symptoms characteristic of the disease. Normal horse serum and Marmorek's new polyvalent serum did not seem to have such effects. Because only 81 of 699 patients with scarlatina were treated with this serum, the 81 cases being presumably the most severe so far as that could be determined at the time of the injections, a critical person would probably question the propriety of attributing the apparently lower death rate in this hospital to the use of the serum alone. It will also be noticed that the figures used by Moser in making his comparison do not concern comparable periods, strictly speaking.

While no one would like to doubt the reliability of the clinical observations as showing a decidedly favorable influence of the serum on the course of severe scarlatina, it is plain that much more extensive experience must be accumulated before its real value can be established definitely. But no one can find fault with Moser's effort on general grounds. Whatever the real cause of scarlatina may be, the disease is associated so constantly with streptococci, which in the majority of the severe and fatal cases are found in the blood, that it seems justifiable to believe that a really effective antistreptococcus serum would rob the disease of half its terrors. For these reasons we hope that Moser's serum will maintain the same efficacy in the hands of others as is claimed for it by its originator and that further efforts in this line may prove still more definitely successful. Streptococci offer so many obstacles to the investigator at the same time as they play so prominent a part in human infections that it may not be amiss to express the hope that much attention will continue to be given to the study of these organisms.

AN AVENUE FOR PHILANTHROPY.

The establishment of public baths is an avenue for philanthropy that is not sufficiently used. In the founding and aiding of hospitals and libraries, which are of so great need and so much appreciated, other needs of the masses should not be disregarded. At the Saratoga meeting of the Association, in an article soon to be published in THE JOURNAL, Dr. Ludwig Weiss quoted from Dr. Walker Laidlaw,[1] that in the eleventh and twelfth assembly districts of New York City, out of 13,657 families, 13,079 were without bathing facilities. This is a sample of conditions in the poorest sections of our large cities and illustrates the need of public baths. They are already to be found in some of the tenement districts in many of our large cities, and are made full use of and enjoyed. Buffalo, New York, Minneapolis and Chicago deserve especial praise for the public baths they have provided. Their number should be increased. It is hardly necessary to remark that equipment with shower and spray baths—not plunge or tub baths—is recommended, for hygienic reasons. As accessories there might be lectures on the hygiene of bathing by physicians selected by the medical societies, placards giving simple precautions in bathing and books on the subject. Simple gymnasia would be valuable, with instruction for underdeveloped shop girls and tradesmen of unequal development. Here we are but a step from the potent center of communal prophylaxis of disease, which is the burden of so many medical articles to-day, which in turn lack the practical bearing of suggestion of the starting point. Precepts are good; details of how to carry them out are better. Let us have more details suggested. Why is not the public bath the easiest and most natural avenue for communal prophylaxis?

1. N. Y. Med. Record, May 31, 1902, p. 861.

THE PRINCIPLE OF LIFE.

In a recent address before the British Association for the Advancement of Science Prof. W. D. Halliburton[1] remarked that the revival of the vitalistic conception in physiologic work appeared to him a retrograde step. It is, in his opinion, a confession of ignorance and, what is still worse, a bar to progress. Why a confession of ignorance should be a bad thing is not at once apparent to every one; it has not heretofore been so considered by the greater men of science. Sir Isaac Newton is, of course, not a modern authority, but there are workers of the present day who, like him, appreciate the limitations of their acquisitions and modestly esteem themselves as only gatherers of pebbles on the shore with the great sea of knowledge still spread out before them. The vitalistic conception of the present day is simply the admission that there is something in living matter that is not identified with any known physical or chemical activities. We may find some so-called laws that it follows; that is, that it acts more or less regularly in certain definite ways, but that will not explain its essence any more than we know what gravitation is because we know how it acts. Professor Halliburton says: "It may be that there is a special force in living things that distinguishes them from the organic world. If this is so the laws that regulate this force must be discovered and measured, and I have no doubt that those laws when discovered will be found to be as immutable as the force of gravitation." He hopes, however, that it will ultimately be found amenable to known physical and chemical laws. It seems to us that the conception of vitality as a principle, force or whatever one may choose to call it, is very far from being a bar to progress. It is, on the other hand, an incentive to research as long as its mystery is undiscovered and a perpetual one if it happens to be undiscoverable. So long as it is not correlated with any physical forces, but rather seems to be in certain

1. The London Lancet, September 20.

structures their controlling and guiding principle, it is certainly assuming a great deal to ask us to admit that there is no alternative, but that it must be proven identical with known physical and chemical agencies. We may do our best to prove it, but it is immodest and unscientific to be too sure that it will be proved and to base all our theories on this assumption. At present it is very far from proved.

THE DANGERS OF CLOSED STOVES.

The recent death of an eminent literary man in France from coal-gas poisoning through a defective stove has called out considerable medical comment, especially in the British medical journals. It appears that, as often happens, this accident has been followed by a number of similar ones in Great Britain and on the Continent, and they are used to point a moral—the dangers of closed stoves as compared with open grates for house heating, and self-congratulations indulged in by our insular contemporaries that the latter method of heating is the prevailing one among them. It is safe to admit that the closed stove is not the ideal warmth producer, but with a continental climate, like our own, with its extremes of cold, dependence on open grates would be still worse. It may be also that the arts of stove construction and management are more advanced in this country than in Great Britain, for accidents of sudden death from stove gas are rather rarely reported. When they do occur it is generally from carelessness or some special defect, and we believe that altogether, with nearly double the population, there are fewer deaths annually from this cause than occur in the British islands from burning due to open grates. Anthracite coal is burned in closed stoves over the whole northwestern portion of the United States, and it is somewhat of a surprise to read in the *Lancet* that when thus used "it is prone to be excessively dangerous." If so, the risk is taken very lightly here, and it may be too lightly at times, for there is a danger, though generally a remote one. Many persons suffer, it is probable, in their general health from gaseous emanations without fully realizing the cause. The popular gas stoves and ranges have also their perils, as the *Lancet* points out, especially if through defect of the burners the combustion is incomplete. It is well that such facts should be known, and the death of M. Zola is a warning that we in this country may also heed, though our experience teaches us that with proper care the danger is slighter than seems to be the case abroad.

TRACHOMA IN THE UNITED STATES.

Because of the relative frequency of trachoma in the countries of the Orient and southern Europe, we have perhaps been accustomed to attach less importance than we should to the comparatively few cases in this country. Attention has been called to the danger of spreading this disease in this country by allowing immigrants who are affected with the disease to come here. Wilder[1] has pointed out that there are already large numbers of cases of trachoma in the United States, and he has especially investigated the prevalence of the disease in Illinois. In the Illinois Institute for the Blind at Jacksonville, 9.09 per cent. of the 451 pupils in attendance were totally blind from trachoma. As a cause of blindness trachoma was second only to blennorrhea neonatorum, which was responsible for 17.25 per cent. of the total number of cases of blindness. At the Illinois Charitable Eye and Ear Infirmary, 5.6 per cent. of the cases treated are cases of trachoma. In the large hospitals for eye and ear diseases in the eastern part of the United States the proportion of trachoma cases is smaller, varying from 0.4 per cent. in the Massachusetts Charitable Eye and Ear Infirmary to 4.9 per cent. in the New York Eye and Ear Infirmary. In New York the larger proportion is probably explained by the numbers of poor foreigners living in the tenement districts. On the contrary, in the Illinois Eye and Ear Infirmary the cases come largely from the rural districts and are of American birth. Wilder found the disease most prevalent in the southern part of the state, and he believes that it is increasing in prevalence. The actual cause of the disease is not certainly known, but the infection is apparently usually due to either direct or indirect contact with previous cases. The vehicles of the infection in many cases are supposed to be sponges, wash cloths, basins, towels, etc. The most favorable conditions for the dissemination of the disease are furnished by intimate association of the infected persons with the healthy, together with neglect of the ordinary principles of hygiene and cleanliness. If certain precautions are taken there need never be any spread of the disease to healthy persons living about infected ones. It, like gonorrheal ophthalmia, is a preventable disease. The most important thing to accomplish in the prophylaxis of the disease is to impress on the patient or his parents the way in which he is dangerous to others, and to teach them how these dangers may best be counteracted. Instructions by physicians of the importance of care to prevent direct contact with the secretions from diseased eyes, and indirect contact through the medium of towels, sponges, etc., must be principally relied on to stamp out this disease in which so much can be done to prevent, but so little often to cure.

1. Ophthalmic Record, November, 1901.

Medical News.

CALIFORNIA.

Physician Acquitted.—Dr. B. Franklin Weaver, arraigned at Bakersfield on a charge of practicing medicine without having first filed the necessary papers with the county clerk, was declared not guilty by the jury.

Personal.—Dr. William J. G. Dawson, St. Helena, has been appointed superintendent of the Home for the Feeble-Minded, Glen Ellen, and has been duly installed.——Dr. Charles E. Stone, Marysville, has been appointed superintendent of the Napa State Hospital, vice Dr. L. Franklin Dozier; Dr. Leonard M. Pulsifer, Napa, has been appointed assistant superintendent.

To Test Validity of Medical Bill.—Dr. Carl von Tiedemann, San Francisco, has applied to the Superior Court for a writ of review to test the right of Police Judge Fritz to examine into a charge of practicing medicine without a license, recently preferred against him by George G. Gere. He asserts that the statute of 1901, providing for the punishment of all persons attempting to practice medicine without a diploma satisfactory to the State Board of Medical Examiners, is unconstitutional.

Hospitals and Sanatoria.—Ground has been broken for a 160-bed hospital to be built by the Sisters of Providence in Oakland.——Dr. Joseph L. Ross, Redwood City, is building a sanatorium at Palo Alto, to cost $15,000.——Drs. A. E.

Hardin and J. E. Moutoux will open their new sanatorium at Sebastopol, January 1.——Fullerton is to have a hospital to cost $3000.—Dr. John W. Robertson, Livermore, has purchased an additional block of ten acres and will erect a special building for the treatment of nervous and mental diseases, to cost $30,000.—The new Berkeley Sanitarium is almost ready to receive patients.

ILLINOIS.

Chicago.

October **Mortality.**—The total deaths reported during October were 1964, or 120 fewer than during the preceding month, and the annual death rate was 12.70 per 1000, as compared with 12.25 in October, 1901.

Deaths of the Week.—The total deaths for the week ended November 1 were 439, or 44 less than the preceding week, but 31 more than for the corresponding week of 1901. This corresponds to an annual death rate of 12.56 per 1000. Of individuals under one year 77 died, and 79 over 60 years.

Banish Drinking Cups.—The drinking cup is to be banished from the public schools. The old-fashioned practice of drinking at the pump spout is to be substituted, provided the board of education adopts the proposition of Trustee Dr. W. A. Kuflewski, to prepare and submit to the buildings and grounds committee a plan for a drinking fountain that would provide a method of taking water without placing the lips to any vessel. Such a plan should include a constant stream of water in such quantities as to insure a sufficient amount for drinking and cleansing purposes. In speaking on his resolution Dr. Kuflewski said the cost would be little, if any, as the existing faucets could be turned to an angle of 45 degrees and adjusted to a gentle flow.

LOUISIANA.

New Orleans.

The Medical Department of Tulane University opened for its sixty-eighth annual session, October 27, with what promised to be a record-breaking attendance, and this in spite of increased entrance requirements.

Scandal in Coroner's Office.—A scandal has come to light in the coroner's office, due to a series of mysterious thefts from dead bodies in the morgue. An attaché of the office is under arrest and the coroner has requested the grand jury to probe the matter thoroughly.

Charity Hospital Changes.—On October 15, Dr. E. D. Fenner, first assistant house surgeon of the Charity Hospital, resigned his position, which he had held since February, 1898. Dr. J. M. Batchelor, second assistant house surgeon since 1896, was promoted to fill the vacancy. The vacancy existing in the second assistant house surgeonship was filled at the meeting of the board of administrators, held November 3.

Anti-Leprosy Ordinance.—The following ordinance to prevent the spread of leprosy and to provide penalties for its violation, was adopted by the New Orleans City Council, October 7:

WHEREAS, The disease known as leprosy, which is contaminating and dangerous to the public health and welfare, exists in this state, and that persons afflicted with said disease are permitted to be at large, thus endangering public health.

Be It Ordained, by the Council of the City of New Orleans, That it shall be unlawful for anyone to harbor a leper or lepers, and the penalty to be imposed on anyone harboring said leper or lepers, and refusing to commit them to the care of the Leper Home, shall, on conviction before the recorder in whose jurisdiction said leper may reside, be subject to a fine of not less than five dollars, nor more than twenty-five dollars, or imprisonment for a term not exceeding thirty days.

MARYLAND.

Baltimore.

Personal.—Dr. W. Wayland Frames has been appointed visiting physician of Endowood Sanitarium for Consumptives in the suburbs, vice Dr. Walter P. Smith, deceased.

Typhoid Decreasing.—Typhoid fever is still on the decrease, there being in the last week but 3 deaths and 29 new cases reported. Pneumonia caused 11 deaths, cancer 8 and consumption 31.

The Journal of the American Medical Library Association, heretofore published in this city, will be discontinued. The proceedings of the association will hereafter be published in the *Medical Library Journal*, a quarterly devoted to medical libraries, bibliography, history and biography, the initial number of which will appear January 1.

Southern Dispensary.—The work of the Southern Dispensary has not been satisfactory to the Board of Supervisors of City Charities, which has decided to employ instead a physician and to give him an office and a female assistant, the latter to look after the women and children. A contract will be entered into with one or more drug stores to furnish medicines. An appropriation of $1340 was made for expenses.

MISSOURI.

St. Louis.

Proposed Sanatorium for Tuberculosis.—The movement looking to the establishment of a sanatorium for tuberculosis to be provided by the state, is well under way. It is meeting with encouragement from all directions and it is more than probable that a strongly endorsed petition will soon be presented to the legislature.

Leprosy Cured or Not.—The physician of Dong Gong, a Chinese leper who has been quarantined since November 1 last, states that by cleanliness and mild medication the leprosy has been cured. This would be gratifying but for the statement of another St. Louis specialist in skin disease, that the leprosy is not cured but is only quiescent.

About St. Louis Hospitals.—Very important additions to the hospital service in St. Louis are being made. The new City Hospital is nearing completion and will leave little to be desired in the way of building or equipment. Some effort was made to have the main buildings located to the west of the city, with an emergency hospital on the site of the old institution. The large grounds and central location of the latter induced the authorities to rebuild where the old hospital was located on Lafayette Avenue, but it is thought that the increasing demands of the city will require an additional building for convalescents near the city limits. The new Jewish Hospital, on Delmar, near the World's Fair grounds, while not large, is admirably constructed and bids fair to be well patronized. Almost adjoining this, the new St. Luke's Hospital is being built. At the old location the noise and limited space were great objections, but in the new situation, just north of Forrest Park, there will be freedom from all such drawbacks. The construction is modern in every particular and in keeping with the fine record of the hospital in which Hodgen and Mudd did their most important surgical work. The Centenary Hospital, attached to one of the medical colleges, is about ready for patients and will doubtless make a good showing. All the local colleges now have hospitals directly under the supervision of the faculty and utilized by the teaching staff. Mount St. Rose, the new hospital for tuberculosis, has just been opened for patients. It is situated on a hill at the extreme southern limits of the city. The large building will, at present rate of admission, soon be inadequate to the demand. It is under the care of the Sisters of St. Mary. So far nothing has been done with the $1,000,000 legacy of the late Mr. Barnes for a general hospital except the selection of the grounds, but it is said that the building will soon be begun. Besides the large hospitals already in full operation, these new ones will aggregate a cost of over $2,800,000, not including the hospital buildings for the Louisiana Purchase Exposition.

NEW JERSEY.

Personal.—Dr. Charles S. Braddock, Jr., Haddonfield, sailed for Bangkok, Siam, October 21. He will be assistant superintendent of the Royal Hospital in that city.——Dr. James T. Wrightson, Newark, has sailed to Bermuda for his health.

Mercer Hospital Wing Opened.—The keys of the new wing to Mercer Hospital, Trenton, were formally delivered to the president of the hospital by John Hall, October 31. Drs. Clark H. Gordon, E. J. Gordon, D. B. Ackley and Walter Madden have been made members of the auxiliary staff.

Hospital Staff Increased.—The work at Alexian Brothers' Hospital, Elizabeth, has so increased that it has become necessary to increase the medical staff, which now is composed as follows: Dr. John P. Reilly, president; Dr. Edward R. O'Reilly, vice-president; Dr. Joseph Funk, secretary, and Drs. Arthur Stern, Samuel Korngut, Alfred Q. Donavan, Thomas E. Dolan, George W. McCallion, Thomas F. Burnett, Elizabeth; Drs. Augustin V. Wendel and George F. Corrigan, Newark, and Dr. Walter E. Cladek, Rahway.

Typhoid Fever at Atlantic City.—Some time ago considerable publicity was given to a typhoid fever epidemic at Atlantic City, and the Academy of Medicine appointed a committee to investigate and report on the cause. The following is an abstract of the report: It was found, after careful investigation, that there was no possible source of contamination of the drinking water supply, which is derived from a series of artesian wells and from a small lake fed largely by natural springs and small streams. The sewerage system is that of West. All sewage flows through a common pumping station and thence is transported in large pipes into a government

highway of ocean water about two miles from the center of the city. During the past summer owing to a break in this pipe almost the entire sewage of the city passed directly into Penrose canal, an artificial waterway containing a comparatively small proportion of tidewater. Two authentic cases of typhoid fever can be traced to sources outside of Atlantic City, where all excreta was thrown into the sewer for four weeks and ten days respectively, with no disinfection. This contaminated the artificial waterway referred to. At another point within the city limits, known as Gardner's Basin, all the sewage of the immediate district was poured directly for many years so that at present these waters are contaminated, rendering them unsafe to use for any purpose. In these infected waters is found the strongest and most positive circumstantial evidence pointing to the source of the present trouble. The oyster supply is also considered as a potent source of contamination inasmuch as in the fattening process the oysters have been placed in water taken from the two infected waterways already referred to. With few exceptions all of the typhoid cases had indulged freely in raw oysters fattened in this way and undoubtedly contracted the disease from them. It has been ordered by the Board of Health that, in future, no oysters fattened in the infected waters be sold or delivered within the corporate limits of Atlantic City under the penalty of a heavy fine. The Atlantic City Board of Health has also issued regulations in regard to oyster fattening with a view to the proper regulation and safeguarding of the output. To the report of the committee is appended an endorsement from Dr. Alexander C. Abbott, professor of hygiene and bacteriology in the University of Pennsylvania.

NEW YORK.

Eddyites Indicted.—Mr. John Carroll Lathrop, the "healer," and Mr. and Mrs. Quimby of White Plains, have been indicted by the Westchester County grand jury on the charge of manslaughter in the second degree, and have been held in $2,000 bail each. The case grew out of the neglect to call in a physician to Esther Quimby, who was suffering from diphtheria, and whose life, it was contended, might have been saved by proper treatment. The case has attracted considerable attention, not only because these are said to be the first indictments for manslaughter in such a case in the state, but also because public indignation was very justly aroused by the fact that while one of the Quimby children was ill at home the sister was allowed to continue in attendance at school, and the board of health was not notified until a few hours before the death.

New York City.

New York Eye and Ear Infirmary.—At the annual meeting of the board of directors of this institution it was resolved to close one of the three departments in a few weeks, owing to lack of funds.

Measles Closes Schools.—The occurrence of a serious outbreak of measles among the pupils of public school No. 13, at Rosebank, Borough of Richmond, has led the health authorities to close the school.

To Obviate Errors.—A good rule to govern ambulance surgeons has been put in force in Brooklyn. It provides that the ambulance surgeon shall bring to the hospital every person found by him unconscious, or partially so. It is hoped in this way to diminish the number of errors in diagnosis arising from confounding intoxication and injuries to the brain.

Vital Statistics.—In the statistical report just issued by the health department it is stated that the death-rate for 1901, assuming the population of the city to be 3,536,517, was 20 per 1,000, as against 20.57 in 1900. The total number of deaths was 70,720, of which 9,839, or almost one-eighth, were from tuberculosis. There were 80,735 births reported for the year.

Medical Lectures for the Laity.—A course of medical lectures for the public is one of the innovations which Columbia University is introducing this year. Beginning November 5, the lectures will be given at the College of Physicians and Surgeons in the lower lecture rooms every Wednesday afternoon at 5 o'clock until April 1, with the exception of the Christmas holidays, on anthropology, chemistry, zoology, etc.

For Poor Consumptives.—The sufferers from consumption in this city who are too poor to obtain expert treatment are to have the benefit of all that medical science can offer at a new clinic to be in the heart of some thickly populated district. The plans are under the charge of Dr. Laurence F. Flick, now head of the Free Hospital for Poor Consumptives at White Haven, Luzerne County, Pa. He has already received $600,000 from a New York man for the purchase of suitable property, and more money is to be forthcoming for equipment and maintenance.

Trachoma in the Schools.—Mention has already been made of the prevalence of trachoma in the public schools, but it has assumed such proportions that the health commissioner has called a conference of ophthalmologists to consult as to the best way of meeting this scourge. Since the opening of the schools this fall no less than 6,667 children have been excluded from the schools because of eye affections. A published statement of the number of cases of trachoma treated in several prominent institutions this year as contrasted with the number treated in the same institutions last year gives a total of 460 for 1901 and 1,673 for the present year.

Suits for X-Ray Burns.—Dr. Samuel Lloyd, of the New York Post-Graduate School, has been sued for $50,000 damages by a man who claims that he was severely injured by an *x*-ray examination made by Dr. Lloyd to determine the exact nature of a doubtful abdominal affection. Dr. Lloyd asserts that the dermatitis of which the plaintiff complains was not an *x*-ray burn, but was produced by the application of antiseptics before the operation. About the same time that this suit was begun a woman sued two dentists for alleged *x*-ray burns of the face causing destruction of her hair. Although the latter case was dismissed on a technicality, these suits indicate the responsibility incurred by users of the *x*-ray.

Puzzling Case of Trance.—The physicians of St. Vincent's Hospital have been both interested and puzzled over a girl who has been in the hospital for thirteen days in a state of trance. According to the history she suddenly became unconscious when about to retire one night, and was taken to the hospital the next day. She is a girl of 19, and beyond seeming to be a little moody and melancholy had apparently been in good health up to the sudden onset of the attack. Hysteria and self-hypnosis have been the diagnoses most in favor, but these views have received a set-back within the last few days by an elevation of the body temperature to between 102 and 104 F. Nourishment has been given by means of injections of predigested milk.

St. Luke's Needs $800,000.—Appeal for an addition of $800,000 to the general endowment fund of St. Luke's Hospital will be made to the public. In the year ending September 30, 2,663 people were treated. The expenses were $183,059.56. Four wards are unused because of lack of funds. It was announced that the plan for building a pavilion for private patients at a cost of $300,000 had not been abandoned. The amount received from legacies in the year was $20,247, and for the endowment of beds $66,346. On account of the great advances in surgery and the additional cost of the treatment of patients the figure for the endowment of beds, $5,000 for adults and $3,000 for children, was insufficient. It was decided to raise the price to $7,500 for adults and $5,000 for children.

Columbia's Report.—The report of the College of Physicians and Surgeons for the academic year 1901-2 recommends that study of the autopsy from the surgical standpoint be taken up at once. The report dwells on the fact that the rapidly increasing number of students is crowding the school beyond its limits. Six candidates for entrance had to be turned away last year, because of lack of accommodations in the laboratories. As a remedy for this, it is suggested that hereafter no conditioned students be admitted. It is expected that the attendance will be cut down next year by the new entrance rules, which will make the institution more post-graduate in character. Out of the 145 men who graduated last year, 101 secured hospital appointments, in all cases through competitive examination.

The Street Cleaning Department.—Some idea of the gigantic task that confronts the Commissioner of Street Cleaning in his efforts to keep the city in proper sanitary condition may be obtained from a published report in which he pleads for more funds. He says that there are at present 1,301 draught horses in the department, and that each of these is required to remove daily 7,314 cubic yards, and to travel about twenty miles. The army of sweepers numbers 2,484 men, who daily sweep 908 miles of streets. Their troubles are increased by the fact that there are 14 miles of open cut for the rapid transit subway, that 1,289 buildings are in course of erection, excavations are being made for 1,562 feet of gas main, 5.43 miles of streets are undergoing repairs and 1.29 miles of water main and 22.8 miles of the city are torn up by heat, light and electric light companies.

Buffalo.

Hazing Abolished.—Hazing of freshmen and the rushes between classes have been abolished in the medical department

of the University of Buffalo. This is due to the decided action of the faculty, which apparently has been successful.

Personal.—Dr. Harvey R. Gaylord and wife have returned from Europe.——Dr. George S. Haviland will soon remove to New York City.——Dr. P. F. Hipp, East Aurora, has moved to Denver, Colo.——Dr. Mary Clayton has been appointed to the staff of the St. Lawrence Hospital, Ogdenburg.

Cost of Smallpox.—Since the disease broke out prior to the Pan-American Exposition there have been 431 cases in the city. The total expense of taking care of patients has been $24,500. In the last epidemic in 1889 there were only 147 cases, which cost the city $22,000. The average cost during the last epidemic was a fraction over 18 cents for each patient.

Isolation Hospital Needed.—The health commissioner urges the construction of a quarantine hospital. During the epidemic just ended the greatest number of cases treated at one time was 80, whereas the maximum capacity of the hospital was 50. Therefore, private houses had to be quarantined and hospitals made of them at great expense to the city, for the inmates in all such quarantined houses had to be provided with food, and at one time over 150 policemen were doing smallpox guard duty in one precinct. Had there been a hospital all of these cases could have been accommodated at one time and there would have been no need for the greater part of the expense. The saving to the city would have amounted to at least $10,000.

OREGON.

Sanatorium Contract Let.—The contract for building the four-story Portland Sanatorium at Mount Tabor has been awarded, the contract price being $17,000.

Medical Schools Open.—The medical department of the Oregon State University, Portland, opened, October 1, with an address by Dr. Simeon E. Josephi, dean of the faculty.—— Willamette Medical School opened for its thirty-seventh annual session, October 1, with an enrolment of 35 students.

Graduated License Fees for Physicians.—It is announced in the lay press that physicians of Portland in the first class, doing a business of $40,000 per year, are required to pay a license of $15 per quarter; second class, between $20,000 and $40,000 per annum, $10 per quarter; third class, between $10,000 and $20,000, $10 per quarter; fourth class, between $3000 and $10,000, $2.50 per quarter; fifth class, between $2000 and $3000, $2 per quarter, and sixth class, under $2000, $1 per quarter.

PENNSYLVANIA.

Personal.—Dr. Israel Cleaver, Reading, has been appointed a member of the legislative committee of the Associated Health Authorities and Sanitarians of Pennsylvania, to represent the eleventh senatorial district in the association.

National Guard Assignments.—Orders were issued from the headquarters of the National Guard of Pennsylvania, October 25, announcing the following appointments in the medical department: Major Samuel C. Milligan, Pittsburg, surgeon Second Brigade headquarters; Major William G. Johnston, Titusville, surgeon; and First Lieutenant W. W. Robertson, assistant surgeon, Sixteenth Regiment.

Typhoid in the Twelfth.—In the Twelfth Regiment, N. G. Pa., encamped at Shenandoah, 30 or more cases of typhoid fever have occurred. Investigation by the local board of health showed that there was no typhoid among the residents; the conclusion was reached that the disease was probably brought to camp and spread by the soldiers. Although good sanitary regulations had been carried out it was decided best to move the camp. A site has been selected near by on higher ground.

Philadelphia.

New Maternity Hospital Finished.—The new maternity hospital addition to the almshouse, which was constructed at a cost of $9,500, is fully finished and ready for occupancy. A committee has been appointed to formally accept the new building.

Proposed Medical Defense Fund.—A proposition for the establishment of a legal defense fund was introduced at the last meeting of the Philadelphia County Medical Society. It was contended that certain persons make a business of bringing damage suits against physicians and surgeons on the ground of malpractice. The proposal met with considerable opposition.

Jefferson Appointments.—At a meeting of the board of trustees of Jefferson Medical College, on October 16, the following appointments were made: Dr. S. Solis-Cohen, senior assistant professor of clinical medicine and physician to Jefferson Hospital, to succeed the late Dr. Wirgman; Dr. John M. Fisher, assistant professor of gynecology; Dr. Addinell Hewson, assistant professor of anatomy; and Dr. E. Quinn Thornton, assistant professor of materia medica.

TEXAS.

Physician's House Burned.—The house of Dr. George W. Allen, Flatonia, was recently destroyed by fire, with all its contents. The loss was about $6000.

Fees in Texas.—The Texas law prescribes that traveling physicians pay $50 occupation tax for the state and $25 each for the city and county. Resident physicians pay no occupation tax.

Itinerant Drugless Practitioner Pays Tax.—A "Dr." Mueller, who advertised to treat by suggestion the people of New Braunfels, has had suit brought against him by the county attorney for $50, the amount of the "occupation tax," and paid the tax.

Medical Colleges Open.—The medical department of the University of Dallas opened October 4.——The medical department of the University of Texas, Galveston, opened, October 1, with a freshman class exceeding 50 in number.——The medical department of Fort Worth University opened, October 2, with an attendance of nearly 200 students.

Providence Hospital.—This hospital, which has recently been incorporated at El Paso by a number of physicians and business men, is a general hospital chiefly intended for medical and maternity cases. The staff is as follows: Drs. Howard Thompson, Gottlieb Wehrle, Henry T. Safford, Alward H. White and Orlando C. Irwin, general medicine and obstetrics; Drs. J. Shelton Horsley, Marcus O. Wright, M. P. Schuster, Augustus L. Justice and Walter N. Vilas, surgery, and Drs. Edgar H. Irvin and Albert Wilkinson, eye, ear, nose and throat. The medical members of the board of trustees are: Dr. M. P. Schuster, president; Dr. Howard Thompson, vice-president; Dr. Alward H. White, secretary, and Dr. J. Shelton. As the hospital is largely owned and controlled by physicians, the institution will be run on a strictly ethical basis.

GENERAL.

Yellow Fever on U. S. Cruiser.—The U. S. Cruiser *Montgomery* is in quarantine at San Juan, Puerto Rico, having found one case of yellow fever on board on her way from Columbia to this country.

Medical Interne Wanted.—Examinations will be held December 9, for the position of medical interne at the Government Hospital for the Insane at Washington, D. C., the salary to be $600. Applicants must be graduates from reputable medical colleges.

Summary of Plague at San Francisco.—During the ten months of 1902 past 35 cases of bubonic plague have been located in California, each case proving fatal. During the first six months there were 6 cases and in the last four months 29. This increase has led to alarm in other parts of the United States.

Cholera in Philippines Decreasing.—By cable October 30 it is reported from Governor Taft in the Philippines that cholera has practically disappeared from the Island of Luzon, and that in Manila there have only been an average of two cases a day during the previous ten days. In all, twenty provinces are now practically free from cholera and only five provinces are now seriously affected. Chief Quarantine Officer Perry says, under date of September 19, that the disease has practically disappeared from those provinces first infected, but those most recently affected are suffering severely. He makes a conservative estimate that the cases of cholera that have actually occurred in the Philippine Islands since March 20 last aggregate 75,000, with a mortality of 75 per cent. Some towns have lost 10 per cent. of their population.

The Maltine Company's Essay Prize Award.—In the competition for the prizes of $1,000 and $500 for the best essays on "Preventive Medicine," offered by the Maltine Company, the first prize was awarded to Dr. W. Wayne Babcock, Philadelphia, for his essay entitled "The General Principles of Preventive Medicine," and the second prize to Dr. Lewis S. Somers, Philadelphia, for his essay entitled "The Medical Inspection of Schools—A Problem in Preventive Medicine." The judges were Drs. Daniel Lewis, New York; Charles A. L. Reed, Cincinnati, and John Edwin Rhodes, Chicago. There were 209 essays submitted from various states as follows: Pennsylvania,

25; New York, 22; Illinois, 15; Massachusetts, 12; Indiana and Ohio, 11 each; Wisconsin, 10; Iowa, 8; Michigan and Minnesota, 7 each; California, 6; Connecticut, Florida, Georgia and Missouri, 5 each; Colorado, Maine and New Jersey, 4 each; District of Columbia, Kentucky and Washington, 3 each; Kansas, Louisiana, Maryland, Montana, Nebraska, South Carolina, Texas, West Virginia and Ontario, 2 each; Alaska, Arkansas, Mississippi, New Hampshire, North Carolina, Oregon, Rhode Island, Tennessee, Vermont, Virginia and New Brunswick, 1 each; and 5 were unidentified. Thus 39 states and 2 provinces of Canada were represented. The judges say "the general high grade of their excellence has made the matter of selection very difficult."

CANADA.

The Smallpox Hospital, Ottawa, after having been closed a month has been reopened for the reception of three patients, all children of the same family.

Montreal's General Health.—Dr. Laberge, the medical health officer of Montreal, reports that the general health of that city is exceptionally good for this season of the year. There is only one very mild case of smallpox in the civic hospital; and the death rate last week was 102.

New Gymnasium for McGill University.—The building of a new gymnasium is again engaging the attention of the students and athletes of McGill University. It is proposed to raise $100,000 for a three-story building for the accommodation of upwards of 1200 students attending the different faculties. The students themselves have already contributed a handsome little sum as a nucleus.

Instruction for Asylum Attendants in Ontario.—In order to improve the service at the insane asylums of Ontario, the Ontario government has just instituted an improved course of training for the attendants. Those entering on the course will be required to remain at the institutions until they graduate, and will be granted a diploma after two years of lectures and training. The training, as far as possible, will be similar to that received by hospital nurses.

New Professor of Hygiene at McGill University.—The medical faculty of McGill University has decided to recommend to the corporation of that institution the name of Dr. T. H. Starkey of University College Hospital, London, England, for the chair of hygiene, rendered vacant through the death of Dr. Wyatt Johnston. Dr. Starkey has had a very wide experience in hygiene in London and India, and at the present time is one of the leading hygienists of England.

Toronto Western Hospital.—The annual report of the Western Hospital of Toronto shows that the institution is in a very prosperous condition. During the past five years it has increased its work fourfold in every direction, and has made headway to the extent of $13,000. It is the intention of the board of governors at an early date to erect a modern wing, with accommodation for 100 beds at graded prices. Nine new physicians have been appointed to the visiting staff.

The Chair of Medical Jurisprudence at Toronto University.—The medical faculty of Toronto University is having no little trouble in selecting a successor to the late Dr. Bertram Spencer to fill the chair of medical jurisprudence in that department. There are said to be no less than fifteen applicants for the position, including a number of prominent and well-known coroners of the city. At present it looks as though either Dr. John Caven, late professor of pathology, or Dr. W. H. Ellis, the professor of chemistry, will be asked to accept the chair.

Improved Sewage System for Toronto.—After dilly-dallying with the question of an improved sewerage system for Toronto for the past twelve years, the city council has at last picked up courage to submit the whole question to the ratepayers at the January municipal elections. It is proposed on the advice of the medical health officer, Dr. Charles Sheard, to ask for a vote of $2,385,000 for this purpose; and as septic tanks and filtration on a sewage farm has been recommended by the health officer, it is altogether likely that system will be adopted. The cost of maintaining this system will be in the neighborhood of $76,000 per annum.

Appointment of a Special Medical Immigration Officer.—In view of the large increase in immigration the Dominion government has arranged for the appointment of Dr. Leonard Ellis of St. John, N. B., as medical officer, to be attached to the immigration branch of the Department of the Interior, with special authority to examine into the health and circumstances of immigrants from the British Isles and European countries, arriving at Canadian ports. The duties of this officer will include the examination of any immigrants rejected by the American commissioners at Canadian seaport towns. It is the intention of the government to prevent pauper immigrants landing in Canada, or those who are afflicted with dangerous diseases. Under the act passed at the last session of Parliament, the government has full authority to deport diseased immigrants and to prevent their landing in Canada.

The Smallpox Indian Trouble.—Some considerable friction has recently been caused between officials at the boundary line between Montana and the Canadian Northwest. The understanding of the matter on this side of the line is that a band of American Indians suffering from smallpox who were on a sixty days' pass from the United States Belknap Agency were turned back into Canada after having been refused admission to the Blackfoot Reservation by the agent in charge there. Although these were American Indians, the Canadian authorities provided them with medical attendance; and when they were fit to be removed, again applied to the agent for their admission into American territory, which, it is reported, was again refused as they did not belong to his agency. This explains the reports sent out from Helena, Mont., that the Canadian government was sending Canadian Indians with smallpox into the United States.

FOREIGN.

Fine for Prescribing by Mail.—A certain apothecary in Berlin has been fined about $122 for promising a positive cure of diseases by correspondence.

Cholera Less in Egypt.—The latest reports from Egypt are that cholera has markedly lessened in its severity and prevalence. From October 25 to November 1, there were 225 cases and 212 deaths in all Egypt.

Plague Inoculation Progresses in India.—Instead of opposition to the wholesale inoculation with plague serum as a prophylaxis in India, the natives are giving their co-operation and the work is progressing satisfactorily.

Whooping Cough Serum.—The cable dispatches state that Dr. Leureaux of Brussels announces a serum for whooping cough which will greatly lessen the length and severity of the disease, as his experience thus far indicates.

Cholera rages in Jerusalem and the surrounding country. During the week ended November 1, there was 494 deaths in Jerusalem. There is great distress because of the inadequacy of medical aid and the increase in the prices of the necessaries of life.

Life Insurance for Physicians in Charge of Plague Patients.—On the initiative of the mayor of Odessa the lives of six physicians who attend plague patients or make bacteriologic examinations in such cases, have been insured for a little more than $5000 each.

Energetic Plague Quarantine at Yokahama.—Plague was discovered in Yokahama, October 6, and a vigorous quarantine was begun. A price was set on rats, and thousands were destroyed, over a thousand persons were removed across the bay to a camp, and many houses were burned. Only five new cases have occurred.

Promotion of the Scarlet Fever Serum.—The Austrian Minister of the Interior has ordered the Vienna officials, police and others, to make every effort to have all cases of scarlet fever, especially the severer ones, sent to the St. Anna Hospital for early serum treatment. The government has also made appropriations for further research in this line.

German Society for the Suppression of Venereal Diseases.—This society was formally organized at a public meeting held October 19, in the Berlin City Hall. Blaschko delivered an address on the prevalence, Lesser on the dangers and Kirchner on the social importance of venereal diseases, Neisser and others on the scope and plans of the society.

Contract Practice.—The Medical Chamber of upper Austria has requested the physicians of that region to refuse to serve as attending physician for the garrison quartered at Steyr as the officer in command insists on restricting the remuneration for the work to one krone ($0.25) a day, and makes the offer in terms that render it an insult to the profession.

Prescribing by Telephone in Finland.—This practice has assumed such proportions at Helsingfors that the authorities have had to regulate it. They require the prescription to be written down as received and telephoned back for verification, with the number. At the first opportunity the prescribing physician must sign the receipt. It is further prohibited to dispense poisons on a telephone prescription.

International Congress for Study of Professional Maladies.—The Italian government is organizing an international congress for the purpose of studying measures to prevent and cure the affections incidental to certain trades and professions. It will be held in 1904 at the time of the festivities to celebrate the opening of the Simplon, and will be supplemented by an exposition of industrial and professional hygiene.

New Pasteur Institutes in Africa.—Dr. Jameson telegraphed in September to London that rabies was terribly prevalent at the Cape, and begged to have an expert sent from the Paris Pasteur Institute to study the situation and found branch institutions. The English authorities, therefore, applied to the Paris Institute, and Dr. A. Loir from the latter has already left for Africa. He has founded branch institutions at Tunis and elsewhere and expects to have another at Boulouwayo soon in operation.

The New Russian Medical Review.—A new journal has been founded at Berlin for the purpose of acquainting the German reading world with what is being done in Russia. It will contain reviews of all the original articles appearing in Russian periodical literature, with a few original communications, all in German. The first number has an original work proceeding from Bobroff's clinic at Moscow on the "Operative Treatment of Exophthalmic Goiter." The editors are two well-known Russian physicians residing in Berlin, and the publisher is Max Hirsch. (*Russische Med. Rundschau*, Verlag von Max Hirsch, Berlin W. 35.)

Unique Medical Association.—Paris has recently witnessed the birth of a new association, called the "Médicale Humanitaire." It is based on the assumption that physicians will play the part of social intermediators, for which they have exceptional opportunities, knowing the needs of the sick and the discouraged poor better than any one else and, on the other hand, they are also in a condition to know the generous impulses of their wealthy patients. The association does not intend to have either regular meetings, fees or officers, but merely to direct benevolent impulses into worthy channels, and incidentally it is hoped that the new organization will acquire great influence in many questions of public and private interest.

Japanese Journal for Dermatology and Urology.—A new journal has recently been founded in Japan with this title. The original articles will appear in German, the abstracts in Japanese. The first numbers contain an article by Dohi on leprosy, which states that the nervous form is much more common there than the nodular form. He treats the latter with a mixture of ol. gynocardia and ol. oliv. ana, while he finds injections of a 1 or 2 per cent. solution of sublimate the best treatment for the nervous form, given continuously with intermissions. The statement is made in this periodical that the proportion of cases of venereal diseases in the Japanese Army fell from 70.2 per cent. to 55.5 in the last three years of the century.

Austrians Elected to German Professorships.—Dr. F. Kraus has been summoned from the medical clinic at Graz to fill Gerhardt's vacant chair of internal medicine at Berlin. This has occasioned surprise, as he is not a native German, having been born in Bohemia in 1858, and received his training under Chiari at Prague and at Vienna. He is the first Austrian to be invited to a chair in the Berlin medical faculty. His principal works have been on medico-chemical topics, and the *Allg. Med. Ct.-Ztg.* expresses amazement that His, von Noorden, Krehl and other German internists of greater renown and of about the same age, have been passed over for an outsider. Two other Austrians have recently been honored in the same way, Professor Rille of Innsbruck having been elected to the chair of dermatology at Leipsic and Professor M. Gruber of Vienna to the professorship of hygiene at Munich left vacant by von Pettenkofer. Professor Emmerich was the *extraordinarius* for the latter post, but was passed over and possibly solaced by the title and rank of regular professor conferred on him at the time.

Organization of the Profession in Austria.—Dr. A. Klein of Vienna has issued an appeal to the physicians of Austria to organize for the purpose of regulating contract practice. The present medical associations have not succeeded in remedying the evils of the present methods of sick insurance societies, the Krankenkassen, and consequently a national "socialist-medical congress" is summoned. He points out that the impoverishment of the members of the profession is constantly increasing, and the entire medical corps throughout Austria is profoundly moved, as they see their livelihood tottering and the future of the profession in jeopardy. Not only personal and professional interests are at stake but also the public welfare, and silence and resignation are no longer in place, but protests, loud and emphatic, and warnings. A "socialist-medical congress" of all the physicians in the land would be a true *vox populi*, and a protest emanating from such a source would resound loud enough to penetrate to the high regions whence alone help can be derived. Such a congress would also promote local organization and closer union throughout the empire. An executive committee of ten has been appointed, which includes Stricker, Weinhardt and Schnirer, editor of the *Klin. Therap. Wochenschrift.*

LONDON LETTER.

Laws Governing Ice Cream.

As a result of the outbreak of ice cream poisoning described previously in THE JOURNAL the health department of the city has issued certain regulations, which are to come into force on November 1, of which the following is a résumé: 1. Any manufacturer of or merchant or dealer in ice creams or other similar commodity who (*a*) permits ice creams to be manufactured or stored in any room in which there is an inlet or opening to a drain, or which is used as a living room or sleeping room; (*b*) in manufacture, sale, or storage omits to take any proper precaution for the due protection of such commodity from infection or contamination; or (*c*) omits, on the outbreak of any infectious disease among the persons employed in his business, to give notice to the medical officer of the City of London, shall be liable for every such offense to a penalty not exceeding $10. 2. Every itinerant vendor, if not himself the manufacturer, shall exhibit in a legible manner on a conspicuous part of his barrow a notice stating the name and address of the person from whom he obtains such commodity, and if such vendor is himself the manufacturer of such commodity he shall in the same manner exhibit his own name and address, subject, otherwise, to a fine not exceeding $10.

Benevolent Symptoms.

At the opening of the winter session at the Liverpool Medical School Sir Frederick Treves delivered a very philosophical inaugural address, in which he pointed out that many of the so-called symptoms of disease are expressions of a natural effort toward cure, and have for their end the ridding of the body of the very troubles they are supposed to represent. Inflammation is in all conditions a benevolent process, the purpose of which is cure. But for inflammation and suppuration every neglected septic prick would be fatal. Take, for example, appendicitis, with perforation. An acrid poison finds it way into the cavity of the peritoneum. The perforation is sudden, accidental, and may be preceded by no warning sign of any kind. Here, again, the disease proper may be without a single symptom. The symptoms of peritonitis which follow the perforation are distressing and urgent, but they are all benevolent in intent, and are the outcome of Nature's vigorous effort to minimize the calamity and save the patient's life. The intense pain and collapse impose on the victim absolute rest, in the most advantageous posture, that, namely, of recumbency. Peritonitis is concerned only in effecting good. It is in every instance a beneficient process. It is Nature's method of cure and is successful in millions of instances.

Bicycle Accidents: Twenty-Four Deaths in One Month.

A journal devoted to cycling has compiled a very serious list of accidents to cyclists in the short period of one month. It includes 24 deaths and 78 other serious injuries, and yet it does not profess to be complete. Examining the causes of death in this alarming list many will be found due to gross carelessness. Five deaths were due to loss of control descending hills, 3 at least to riding in traffic, one to electric tramways, 10 to collision with other vehicles or pedestrians, and the remaining 5 to other causes. In addition a policeman was killed who was run into by a cyclist.

Framboesiform Chancres.

At the Polyclinic Mr. Jonathan Hutchinson called attention to the fact that erratic chancres—i. e., extragenital ones—seldom exhibit characteristic induration. They may vary greatly in features and not infrequently they assume the condition of a mass of granulation tissue of considerable elevation not unlike a small raspberry. He showed three photographs of such chancres produced by tatooing. He also made use of this fact to support his well-known vein of the identity of "yaws" or "frambœsia tropica" and syphilis. This frambœsiform character in the primary and secondary lesions of yaws has been insisted on by his opponents as distinguishing the latter from syphilis.

Correspondence.

A Disclaimer.

NEW YORK CITY, Oct. 29, 1902.

To the Editor:—A report has been widely disseminated through the secular press that I made a statement to some newspaper reporters that Professor William H. Welch had claimed the discovery of a universal virus or remedy which would immunize the human race from all forms of infection. No such claim was made by Professor Welch, nor has such statement been authorized by me. Yours truly.

JOHN A. WYETH, M.D.

Queries and Minor Notes.

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

ASTASIA ABASIA?—LITTLE'S DISEASE?

To the Editor:—Erma Y. was born in June, 1890. For the first two hours after birth it was a question whether or not there was vitality enough to sustain life. By the use of artificial respiration, etc., reaction was finally brought about; this was immediately followed by a period of very severe convulsions, lasting about 36 hours, then in a milder form for 24 hours. All parts of the body are well developed, considering the fact that there has been no opportunity to exercise the muscles. All faculties except the power to use the voluntary muscles are normal. The intellect is clear and bright, and she understands perfectly everything spoken or read to her. If in reading a story to her one should leave out a sentence she will at once let one know the fact, and is not satisfied until the connection of the story is complete. If one is reading from a book and should lay it aside for a week or even two she will let it be known whether or not one has recommenced at the right place. She is very mindful of her little sisters, immediately seeing anything which she thinks may harm them, and warns them. The general health is perfect and she has never had any severe illness except the little troubles of childhood. The family history is perfect. She has never been able to walk or talk or control any of the voluntary muscles; she has perfect control of the rectum and bladder. She makes the sounds of a few words, such as "no," "yes," "pa," "ma," and a few other words of this character, so that they may be recognized. If placed on her feet she will sustain her own weight as long as her attention is kept away from herself, but as soon as she notices that anyone is watching what she is doing she immediately loses control of her legs and falls if not supported. In other words, she does not seem to have any control of the voluntary muscles, although if one takes hold of her hand and tells her to squeeze it she has a firm grip.

The voluntary muscles are placid. The hand shake is not spasmodic. She has had no convulsions since the one immediately following birth. The reflexes are normal. The weight is 44 pounds, the height 48 inches. The intellect seems to be perfectly normal, clear and bright; appearances and actions indicate that there is perfect comprehension of everything said or done. The strangest feature of the case to me is the fact that the intellectual powers are so strong and the motive powers so weak.

I am especially interested in this case. While it is not in my immediate family, there is a relationship existing that makes it of special interest to me. I will be glad to answer any questions or give any further information that I can. CHAS. S. HART.

ANS.—The case is one that needs a thorough examination that one might form a reliable diagnosis. From the symptoms given the most reasonable suggestion is infantile hysteria, possibly based on organic trouble, to find which would require careful study. It is barely possible that it is a case of Little's disease, although it lacks the characteristic spasmodic symptoms, and the other evidences of the organic lesions supposed to accompany this disease.—ED.

ADVISABLE PROCEDURE WHEN PREFERRED TREATMENT IS REFUSED BY PATIENT.

Oct. 30, 1902.

To the Editor:—Dr. A. is called to see some cases of diphtheria, and after explaining the superiority of the antitoxin treatment fails to obtain consent of the family to use it and treats the cases according to older methods with success. Dr. B. is also placed in similar circumstances and fails to obtain consent to use antitoxin and refuses to treat the cases. Is Dr. A. or Dr. B. pursuing the better course? M.

ANS.—A physician should not be obliged to compromise with his convictions. Further: If he considers antitoxin absolutely necessary, as in a laryngeal case for example, he would be wiser to give some one else the opportunity to sign a death certificate. He should not disregard humanity, however, and if he is the only physician available it would be his duty to stay and do all he can. In any event he should have his position fairly understood by the family.

DOSE FOR A CHILD.

ST. LOUIS, Nov. 3, 1902.

To the Editor:—In calculating the dose for a child, do you take the *mean* of the smallest and largest dose that is given to an adult and multiply that by the fraction $\frac{\text{Age}}{\text{Age} + 12}$? J.

ANS.—Yes.

Association News.

The Committee on Medical Legislation of the American Medical Association is: Dr. H. L. E. Johnson, Washington, D. C., chairman; Dr. Wm. H. Welch, Baltimore, and Dr. W. L. Rodman, Philadelphia. The auxiliary committee of the Committee on Medical Legislation is as follows:

Alabama—
Arkansas—Dr. Frank Vinsonhaler, Little Rock; Alternate, Dr. C. Travis, Hot Springs.
Arizona—Dr. H. W. Fenner, Tucson.
California—Dr. Geo. H. Evans, San Francisco.
Colorado—Dr. Samuel D. Hopkins, Denver.
Connecticut—Dr. Max Mailhouse, New Haven.
Florida—Dr. Warren E. Anderson, Pensacola.
Georgia—Dr. Howard J. Williams, Macon.
Idaho—Dr. Robt. L. Nourse, Hailey, Idaho.
Indiana—Dr. W. N. Wishard, Indianapolis.
Indian Territory—
Illinois—Dr. Carl E. Black, Jacksonville.
Iowa—Dr. Van Buren Knott, Sioux City.
Kansas—Dr. R. A. Roberts, Kansas City.
Kentucky—Dr. J. N. McCormack, Bowling Green.
Louisiana—Dr. Chas. Chassaignac, 830 Canal St., New Orleans.
Maine—Dr. W. B. Moulton, Portland.
Maryland—Dr. John W. Chambers, Baltimore.
Massachusetts—Dr. J. F. A. Adams, Pittsfield.
Michigan—
Minnesota—Dr. Arthur Sweeney, St. Paul.
Mississippi—Dr. J. C. Hall, Anguilla.
Missouri—Dr. D. C. Gore, Marshal.
Montana—Dr. J. F. Spelman, Anaconda.
Nebraska—Dr. B. F. Crummer, Omaha.
Nevada—
New Hampshire—Dr. Chas. R. Walker, Concord.
New Jersey—Dr. Geo. E. Reading, Woodbury.
New Mexico—
New York—Dr. E. E. Harris, New York City.
North Carolina—Dr. Richard H. Lewis, Raleigh.
North Dakota—Dr. H. A. Beaudoux, Fargo.
Ohio—Dr. N. P. Dandridge, Cincinnati.
Oklahoma Territory—
Oregon—Dr. Andrew C. Smith, Portland.
Pennsylvania—Dr. John B. Roberts, Philadelphia.
Rhode Island—Dr. Gardner T. Swarts, Providence.
South Carolina—Dr. E. F. Parker, Charleston.
South Dakota—Dr. R. C. Warne, Mitchell.
Tennessee—Dr. T. J. Happel, Trenton.
Texas—Dr. J. D. Osborn, Cleburne.
Utah—Dr. E. V. Silver, Salt Lake City.
Virginia—Dr. Lewis G. Pedigo, Leatherwood.
Vermont—
Washington—Dr. J. B. Eagleson, Seattle.
West Virginia—Dr. W. P. Goff, Clarksburg.
Wisconsin—Dr. U. O. B. Wingate, Milwaukee.
Wyoming—Dr. R. Harvey Reed, Rock Springs.
U. S. Marine-Hospital Service—Dr. Walter Wyman.
U. S. Navy Medical Corps—Dr. R. A. Marmion, U. S. N.
U. S. Army Medical Department—Col Chas. Smart, Assistant Surgeon-General, U. S. A.

New Members.

The following is a list of new members for the month of October:

ALABAMA.
Berry, W. T., Birmingham.
Wilder, W. H., Birmingham.
Jackson, W. R., Mobile.

ARIZONA.
Chenoweth, W. F., Nogales.

ARKANSAS.
McClain, M. D., Woodson.
Bathurst, W. R., Prescott.
Walt, D. C., Altheimer.
Woolford, W. S., Kingsland.
Thibault, H., Ashvale.
Johnson, J. J., Harrison.
Ellis, L. R., Hot Springs.

CALIFORNIA.
Burrows, F. G., San Francisco.
Ewer, E. N., Oakland.
Hess, H. A., San Francisco.
Terry, W. I., San Francisco.
Crease, F. J., Bakersfield.
Peck, R. E., San Francisco.
Rosenthal, A. G., San Francisco.
Zelinsky, Frank, San Francisco.
Meininger, L. L., San Francisco.

COLORADO.
Ragsdale, E. W., La Junta.
Fewkes, John, Lamar.
Packard, G. B., Denver.

CONNECTICUT.
Kirby, F. A., New Haven.
Mariani, Nicola, New Haven.
St. John, S. B., Hartford.
Field, A., East Hampton.
Cremin, L. M., New Britain.

DELAWARE.
Marshall, G. W., Milford.

DISTRICT OF COLUMBIA.
Blackburn, R. S., Washington.
Mackall, Louis, Jr., Washington.
Lemon, Hanson T. A., Washington.

FLORIDA.
Weaver, E. R., Trilby.
Cyrus, Wm. H., Palaska.
Platts, Clyde P., Fort Pierce.

GEORGIA.
Morrison, A. A., Savannah.

IDAHO.
Rich, Lorin F., Rexburg.

ILLINOIS.
Webster, E. H., Evanston.
Conlon, Andrew A., Chicago.
Lewis, Thos. H., Chicago.
Byrne, Wm. D., Chicago.
Reed, Chas. B., Chicago.
Slaymaker, S. R., Chicago.
Small, Chas. P., Chicago.
Street, R. H., Chicago.
Colwell, N. P., Chicago.
Bass, G. E., Chicago.
Cunat, Edward, Chicago.
Shortle, A. G., Chicago.
Broell, A. C., Chicago.
Barnes, S. M., Fairbury.
Foster, I. A., New Haven.
Hanna, W. McM., Lisbon.
Weber, J. C., Clay City.
Miller, S. M., Peoria.
Whiting, Marcus, Peoria.
White, H. A., St. Charles.
Adams, Geo. C., East St. Louis.
Cooper, J. F., Elmwood.
Miles, Walter, Viola.
Watts, E. L., Triumph.
Steele, H. D., Princeton.
Stetler, T. H., Paw Paw.
Robinson, L. F., Ullin.
Nusbaum, D. H., Bloomington.
Wash, G. A., Palmyra.
Grigson, R. J., Augusta.
Twitchell, J. W., Belleville.
Ames, E. H., Antioch.
O'Shay, F. J., Braidwood.

INDIANA.
Sexauer, C. F., Hartford City.
Wheeler, H. H., Indianapolis.
Clark, J. H., Connersville.
Blinks, E. G., Michigan City.
Yenne, C. H., Washington.
Stevens, B. C., Logansport.

IOWA.
Replogle, H. M., Udell.
Silver, M. E., Sioux City.
Donnelly, Wm., Ryan.
Keith, W. K., Fontanelle.
McClees, C. H., Marne.
Hancock, J. C., Dubuque.

KENTUCKY.
Gaines, F. M., Carrollton.
Holland, S. C., Grahamville.
Griffin, J. W., Lewisport.
Chambers, Frank, Chambers.
Heavein, J. H., Hawesville.
Lightfoot, C. R., Hawesville.
Griffin, Albert, Utility.
Milner, J. T., Patesville.
Foster, A. C., Morganfield.
Knox, J. W., Lewisport.

LOUISIANA.
Magruder, M. J., New Orleans.
Chassaignac, Chas., New Orleans.
Jacoby, Alfred, New Orleans.
Smith, V. C., Henderson.
Fontaine, B. W., Barnes.

MAINE.
Abbott, E. G., Portland.

MARYLAND.
West, M. B., Baltimore.

MICHIGAN.
Murray, E. B., Ypsilanti.
Yates, Albert, Washington.
Jenkins, C. G., Lansing.
Greenwood, J. H., Detroit.
Keichline, J. M., Battle Creek.
Williams, M. A. W., Bay City.
Fitzgerald, J. J., AuSable.
Betteys, A. M., Oxford.

MINNESOTA.
McNamara, J. G., St. Paul.
Jackson, R. N., Faribault.

MISSISSIPPI.
McLean, S. H., Jackson.
Crawford, W. W., Hattiesburg.

MISSOURI.
Corbin, D. R., Bloomfield.

NEW JERSEY.
Poole, L. E., West Hoboken.
Armstrong, Alex., Trenton.
Hutchinson, A. D., Trenton.
Holcombe, C. H., Trenton.

NEW MEXICO.
Diaz, J. M., Santa Fe.

OHIO.
McClung, J. J., Jackson.
Warren, D. B., Wellston.
Morgan, J. F., Jackson.
Sanders, A. F., Cincinnati.
Hobbs, W. A., S. Liverpool.
Moore, H. M. W., Columbus.
Montgomery, R. H., Youngstown.

OREGON.
Holcomb, Curtis, Portland.

PENNSYLVANIA.
Rothrock, A. M., West Chester.
Comerer, J. A., Vintondale.
Wilson, Henry, Somerset.
Hanna, Hugh, Philadelphia.
Alleman, Frank, Lancaster.
Donaldson, W. F., Pittsburg.

SOUTH CAROLINA.
Jefferies, J. L., Spartanburg.

SOUTH DAKOTA.
McRoberts, Wm. J., Edgemont.

TENNESSEE.
Michie, W. T., Memphis.
Ellis, G. M., Chattanooga.

TEXAS.
Webster, H. R., Texarkana.

VERMONT.
Gleason, D. A., No. Bennington.

VIRGINIA.
Evans, William, Norfolk.
Reade, F. M., Richmond.
McGuire, J. A., Wise.
Foster, W. B., Richmond.

WASHINGTON.
Wilson, R. D., Tacoma.
MacLean, J. D., Spokane.
Henssy, W. C., Seattle.
Betts, C. A., Everett.

WEST VIRGINIA.
Crary, Archibald, Huntington.
Enslow, C. R., Huntington.
Ridgway, F. B., Wheeling.
Stuart, T. F., Huntington.
Vinson, L. T., Kenora.

WISCONSIN.
Gavin, S. E., Fond du Lac.
Gifford, H. B., Juda.

State Boards of Registration.

Utah Report.—The Board of Medical Examiners of the State of Utah met at Salt Lake City, October 6, and examined 6 candidates, of whom 1 failed.

PASSED.

Candidate.	Sch. of Pract.	College.	Year Grad.	Percent.
341	R.	Coll. P. and S., San Francisco.....	1897	89 6-7
342	R.	Coll. P. and S., San Francisco.....	1897	83 1-7
343	R.	Iowa Coll. P. and S., Des Moines..	1901	80 2-7
345	R.	Coll. Phys. and Surgs., Chicago...	1902	80 3-7
344	R.	Starling Medical College, Ohio....	1882	87 3-7

FAILED.

7	R.	Missouri Medical College, St. Louis	1890	60 5-7

Minnesota Report.—The following is the report of the examination held by the Minnesota State Board of Medical Examiners, at St. Paul, October 7, 8 and 9: Subjects, 12; questions, 95; percentage required to pass, 75; written examination; total number examined, 50; passed, 45; failed, 5.

PASSED.

Candidate.	Sch. of Pract.	College.	Year Grad.	Percent.
2086	R.	College of Phys. and Surgs., Iowa...	1898	76.8
2087	R.	College of Phys. and Surgs., Chicago.	1902	76.6
2102	R.	College of Phys. and Surgs., Chicago.	1902	*79.1
2109	R.	College of Phys. and Surgs., Chicago	1902	79.1
2125	R.	College of Phys. and Surgs., Chicago.	1902	77.1
2130	R.	College of Phys. and Surgs., Chicago.	1902	86.7
2128	R.	Coll. of Phys. and Surgs., Wisconsin.	1902	76.1
2088	R.	Rush Medical College.....	1897	85.1
2098	R.	Rush Medical College.....	1901	75.4
2106	R.	Rush Medical College.....	1902	82.4
2101	R.	Rush Medical College.....	1902	87.6
2108	R.	Rush Medical College.....	1902	90.3
2111	R.	Rush Medical College.....	1902	75.1
2113	R.	Rush Medical College.....	1900	80.3
2089	R.	University of Minnesota.....	1902	77.5
2114	H.	University of Minnesota.....	1900	86.1
2118	R.	University of Minnesota.....	1893	84.4
2104	R.	University of Michigan.....	1893	88.6
2121	R.	University of Michigan.....	1898	86.3
2126	R.	University of Michigan.....	1877	*75
2135	R.	University of Michigan.....	1902	85.5
2119	R.	University of Maryland.....	1902	80.5
2091	R.	Kansas Medical College.....	1899	75.2
2092	R.	Trinity University	1902	86.8
2093	E.	Bennett Medical College, Chicago...	1901	81.3
2097	E.	Bennett Medical College, Chicago...	1902	85.9
2094	R.	Hospital Med. Coll., Louisville.....	1897	90.1
2095	E.	Ecl. Med. Inst., Cincinnati.....	1895	77.9
2096	H.	Hahnemann Med. Coll., Philadelphia	1902	*83.3
2099	E.	McGill University	1900	84.4
2100	R.	Jefferson Med. Coll., Philadelphia...	1902	77.6
2103	R.	Harvard University	1901	82.7
2105	R.	Hamline University	1902	*83.1
2107	R.	Hamline University	1902	*87.2
2112	R.	Hamline University	1896	*75
2115	R.	Hamline University	1902	77.7
2116	R.	Hamline University	1902	86.4
2124	R.	Hamline University	1902	*79.8
2110	R.	Med.-Chir. Coll., Philadelphia.....	1902	87.7
2117	R.	Northwestern University, Chicago...	1902	80.9
2120	R.	Northwestern University, Chicago...	1901	88.8
2127	H.	New York Homeo. Med. Coll.....	1900	84.4
2132	R.	Saginaw Valley Med. Coll.....	1901	82.7
2133	H.	Homeo. Med. Coll., St. Louis.....	1881	81.3
2134	R.	Kentucky School of Medicine.....	1902	81.5

FAILED.

2090	R.	Barnes Med. Coll., St. Louis.....	1901	74.8
2122	R.	Marion Sims Med. Coll., St. Louis..	1902	63.1
2123	R.	College of Phys. and Surgs., Chicago.	1902	72.8
2131	R.	College of Phys. and Surgs., Iowa...	1898	66
2129	H.	Hahnemann Med. Coll., Chicago....	1897	63.8

* Partial examination in certain subjects; unsuccessful in previous examinations.

Book Notices.

A Text-Book on Diseases of Infancy and Childhood. For the Use of Students and Practitioners. By Henry Koplik, M.D., Attending Pediatrist to Mt. Sinai Hospital, New York. Illustrated with 169 Engravings and 30 Plates in Color and Monochrome. Cloth. Pp. 675. Price, $5.00. New York and Philadelphia: Lea Brothers & Co. 1902.

If there is one branch of medical practice of more importance than another for the general practitioner, it is that of the diseases of children. So, while the books on pediatrics are increasing, it is by no means a bad augury, but bespeaks the fact that the profession is calling for such works and that the subject is receiving the study its importance demands. The book before us is a valuable addition to the literature. Dr. Koplik has not given us as pretentious a volume as some of the other text-books on diseases of children, but he has handled the subject in a practical and concise manner. The chapter on specific infectious diseases is especially good. Like too many authors of books on this subject, he has not given as much space to the diseases of the newborn as is desirable. This, we are sorry to say, is too commonly relegated to works on obstetrics, and in them it is nearly always inadequately treated. In discussing the treatment of the various diseases, the author is prone to be too general; full and specific information ought to be found in the text-books and nothing taken for granted. The book is well illustrated.

Physical Diagnosis. Diseases of the Thoracic and Abdominal Organs. A Manual for Students and Physicians. By Egbert Lefevre, M.D., Professor of Clinical Medicine and Associate Professor of Therapeutics in the University and Bellevue Hospital Medical College. Illustrated with 74 Engravings and 12 Monochrome Plates. Cloth. Pp. 448. Price, $2.25. Philadelphia and New York: Lea Brothers & Co. 1902.

This little work on physical diagnosis is comprehensive and includes a great deal within a small space. Each subject is

taken up systematically and the subjects are presented in a lucid manner. One is especially pleased to note the careful attention that is given to methods of examination. The description of the proper method of percussion, with the figures, is much better than is found in many of the books on physical diagnosis. Much attention is paid to the configuration of the normal and the pathologic chest, and as might be expected, a good deal is made out of the anatomic relations of the bronchi, as Lefevre's work in this respect is already well and favorably known. While, naturally, the physical diagnosis, as regards the abdomen, occupies less space than that allowed the chest, possibly a criticism might be offered in that the abdomen has received less attention than it deserves. Altogether the book is to be heartily commended.

THE TREATMENT OF TABETIC ATAXIA by Means of Systematic Exercise. An Exposition of the Principles and Practice of Compensatory Movement Treatment. By Dr. H. S. Frenkel, Medical Superintendent of the Sanatorium "Freihof" in Heiden (Switzerland). Only Authorized English Edition. Translated and Edited by L. Freyberger, M.D. (Vienna), M.R.C.P. Lond., M.R.C.S. Eng., Hon. Physician to the St. Pancras and Northern Dispensary. With 132 Illustrations. Cloth. Pp. 185. Price, $3.00. Philadelphia: P. Blakiston's Son & Co. 1902.

Frenkel's method of treating ataxia has been before the profession for some years, but its thorough understanding will be helped by the publication of this book. It is not exactly a translation, but an adaptation to the requirements of the medical practitioner. Frenkel's treatment, as is probably well known, is based on the sensory theory of ataxia and is practically a re-education of the organs in this particular point of view. The theory is thoroughly stated in the first part of the book; the latter part is given up to the details of treatment and here the descriptions and illustrations meet the requirements very thoroughly, so that anyone who has the patience and time could conduct the treatment to a considerable extent even without elaborate apparatus. The book should prove a useful one.

THE FORCE OF MIND OR THE MENTAL FACTOR IN MEDICINE. By Alfred T. Schofield, M.D., M.R.C.S., etc., Hon. Physician to Fruedenheim Hospital. Cloth. Pp. 309. Price, $2.00 net. Philadelphia: P. Blakiston's Son & Co. 1902.

This is a little work devoted to the subject of the psychic treatment of disease. The neglect of the mental factor in medicine, according to its author, has been a serious weakness in the past and still continues. He takes for his text throughout the "unconscious mind," which is practically what is called an automatism of the perfected organism. He maintains that the mental factor including the use of the "unconscious mind" is present in all diseases functional and organic; that it is a causal factor in most organic diseases. Of course, a discussion of the phenomena and treatment of hysteria, neurasthenia and other psycho-physical conditions have taken up a large part of the work. While in some respects the work is open to criticism, as a whole, it will be profitable to the physician who peruses it.

THE MEDICAL TREATMENT OF GALLSTONES. By J. H. Keay, M.A., M.D. Cloth. Pp. 126. Price, $1.25. Philadelphia: P. Blakiston's Son & Co. 1902.

This is an unsuccessful attempt to make out that the medical treatment of gallstones is far superior to the surgical treatment in all except a very small number of selected cases. The author became convinced of this through his own experience. After having tried medical treatment in vain, he was about to submit to a surgical operation, when the gallstones passed and he was relieved. This, to his mind, was convincing proof of the superiority of medical to surgical treatment. About four-fifths of the book is taken up with a hasty and somewhat superficial discussion of the etiology, symptomatology and diagnosis of gallstones, and only about twenty pages are occupied with the discussion of the medical treatment. There is nothing new in his therapy.

Marriages.

ENOS E. PALMER, M.D., to Miss Florence Cook, both of Ottawa, Ill., October 22.

ADAM G. NICHOL, M.D., to Miss Bertha Cheek, both of Nashville, Tenn., November 5.

SAMUEL MOORE, M.D., Danville, Ill., to Miss May Smith of Philadelphia, November 5.

W. DUFF BULLARD, M.D., to Miss Anna Mary Riker, both of New York City, October 29.

GEORGE LATROBE EWALT, M.D., to Miss Emma K. Merritt, both of Baltimore, October 22.

FREDERIC C. BISHOP, M.D., to Miss Gertrude Craig, both of New Haven, Conn., October 20.

W. FRANKLIN TAYLOR, M.D., to Miss Lena Virginia Brehme, both of Laurel, Md., October 25.

JOHN M. GENTRY, M.D., Stony Fork, Pa., to Mrs. Emily J. Wilcox of Olmsville, Pa., October 15.

ALPHEUS A. SWAYZE, M.D., Hackensack, N. J., to Mrs. O. J. Shepard, at Westfield, N. J., October 6.

S. C. SCHMITT, M.D., Blue Earth City, Minn., to Miss Fannie E. Robbins of Austin, Minn., October 23.

C. DAY SHUART, M.D., Brandon, Wis., to Miss Ellen Lucy Maine of Stevens Point, Wis., October 22.

F. GREGORY CONNELL, M.D., Leadville, Colo., to Miss Isabella Stickney of Wauwatosa, Wis., October 21.

FRANCIS X. DEROIN, M.D., Chicopee, Mass., to Miss Emma Tetrault of Springfield, Mass., October 22.

ENNION G. WILLIAMS, M.D., Richmond, Va., to Miss Anna Heath Lassiter of Petersburg, Va., October 21.

CHARLES E. SNYDER, M.D., to Miss Annie E. Carville, both of Kent Island, Queen Anne County, Md., October 21.

ROY BARTLETT METZ, M.D., Cleveland, Ohio, to Miss Olive Rossiter McCleary, at Stoneboro, Pa., October 20.

FRED EVERETT WHEELER, M.D., West Paris, Maine, to Miss Annie Laura Williams of Bath, Maine, October 22.

WILLIAM CLAY ABEL, M.D., West Union, W. Va., to Miss Laura May Greene of Campello, Mass., October 22.

JOHN SHEPARD, M.D., Sheboygan Falls, Wis., to Miss Huldah Thompson of Milwaukee, at Beloit, Wis., October 22.

JOHN C. LEGRANDE, M.D., Birmingham, Ala., to Mrs. Finck of Louisville, Ky., at Chattanooga, Tenn., October 29.

HENRY ERSKINE PRESSLY, M.D., Birmingham, Ala., to Miss Mamie Moore of Marion Junction, Ala., November 5.

HARRY AUSTIN COSSITT, M.D., Morris Plains, N. J., to Miss Pauline Calvin Burns of New York City, October 22.

RICHARD MILLS PEARCE, M.D., to Miss May Harper, daughter of Dr. John H. Musser, all of Philadelphia, November 6.

PETER DUNCAN MACNAUGHTON, M.D., Calumet, Mich., to Miss Ethel Mayo Rossiter of Brooklyn, N. Y., November 5.

J. CARROLL MONMONIER, JR., M.D., Baltimore, to Miss Helen Fenwick Burr of Florida, at Washington, D. C., October 22.

CHARLES S. HOOVER, M.D., son of Dr. Collins M. Hoover, to Miss Helen Speaker Williams, both of Alliance, Ohio, October 22.

LINCOLN DAVIS, M.D., to Miss Katherine B. Crowninshield, both of Boston, Mass., at Peaches Point, Marblehead, October 21.

Deaths.

Woodford M. Vertrees, M.D. University of Louisville (Ky.), 1852, surgeon of the Sixth Kentucky Infantry, C. S. Army, a member of the Tennessee Medical Association, one of the founders of the medical department of the University of Tennessee and for quarter of a century professor of materia medica in that institution, died at his home in East Nashville, Tenn., October 22, from nervous exhaustion, after an illness of four days, aged 76. Resolutions of respect were adopted by the faculty of the medical department of the University of Tennessee and by the physicians of Nashville.

William R. Whitehead, M.D. University of Pennsylvania, Philadelphia, 1853, died in Denver, October 13, aged 70. He was a veteran of the Crimean war, through which he served as surgeon in the Russian Army, receiving the decoration of St. Stanislaus from the Czar on account of distinguished service. He also served as division surgeon in the Confederate service during the Civil war. He was one of the founders of the medical departments in the Universities of Colorado and Denver. He has been a resident of Colorado for thirty years and was instrumental in securing a sewage system for Denver.

Daniel E. Hughes, M.D. Jefferson Medical College, Philadelphia, 1875, chief resident physician at the Philadelphia

Hospital and Almshouse for twelve years, and a member of the American Medical Association, died at the hospital, October 28, from tubercular peritonitis, alleged to have been contracted as a result of partaking of food prepared by a tubercular patient at the hospital who had been pressed into service as a cook.

Joseph Sheppard, M.D. Bellevue Hospital Medical College, New York, 1849, a member of the American Medical Association, the Medical Society of New Jersey, and the Cumberland Medical Society, a surgeon in the Army during the Civil war and the oldest practitioner of Bridgeton, N. J., died at his home in that city, October 23, aged 74.

Andrew J. Baxter, M.D. Medical College of Ohio, Cincinnati, 1861, for more than twenty-five years surgeon to Alexian Brothers' Hospital, Chicago, and for a long time surgeon at Cook County and Michael Reese hospitals, died at his home in Chicago, October 25, from paralysis, after an illness of eighteen months, aged 66.

Theodore F. C. Van Allen, M.D. Albany (N. Y.) Medical College, 1883, ophthalmic and aural surgeon at St. Peter's Hospital, Albany, and some-time president and treasurer of the Albany County Medical Society, died at his home in Albany, October 28, from consumption, after an illness of about one year, aged 41.

Jacob F. Hoffa, M.D. Jefferson Medical College, Philadelphia, 1876, three times a member of the Pennsylvania legislature, and president of the Montour County Medical Society, died at his home in Washingtonville, Pa., October 27, from inflammation of the bowels, after an illness of two weeks, aged 50.

Benjamin F. Holcomb, M.D. University of Wooster, Cleveland, 1865, assistant surgeon of the Thirty-sixth Ohio Volunteer Infantry in the Civil war, and for many years a practitioner of Jackson, Ohio, died at the home of his daughter in Fostoria, Ohio, October 21, from paralysis, aged 67.

Joseph C. Rutherford, M.D. Vermont Medical College, Woodstock, 1849, surgeon of the Tenth and Seventeenth Vermont Infantry, U. S. V., in the Civil war, and a practitioner in Newport, Vt., for more than 40 years, died at his home in that town, October 20, from heart disease, aged 84.

Joseph Sylvester Richmond, M.D. Vermont Medical College, Woodstock, 1853, for a term president, and for many years secretary of the Vermont State Medical Society, and a member of the Connecticut River Medical Association, died at his home in Windsor, Vt., October 22, aged 74.

John Henry Howard, M.D. Kentucky School of Medicine, Louisville, 1875, for several years resident physician at State Hospital for the Insane No. 1, Fulton, Mo., who was under treatment for cancer of the neck, died suddenly in St. Louis, October 24, aged 75.

Charles E. Jackson, M.D. Jefferson Medical College, Philadelphia, a contract surgon, U. S. Army, recently returned from Manila, died at the home of his parents in Massillon, Ohio, October 24, from sepsis, contracted during a surgical operation, aged 40.

James C. Merrill, M.D. University of Pennsylvania, Philadelphia, 1875, major and surgeon, U. S. Army, who had been connected for several years with the Army Medical School, Washington, D. C., died at his home in that city, October 27.

Asa B. Gardner, M.D. University of Louisville, Ky., 1874, ex-president of the Texas State Medical Association, died at his home in Bellville, Texas, from Bright's disease, October 22, after an illness of eighteen months, aged 50.

William Young, M.D. University of Glasgow, Scotland, 1842, said to have been the last surviving charter member of the New York Academy of Medicine, died at his home in Cold Spring, N. Y., October 26, aged 82.

Joseph Senay, M.D. Harvard Medical School, Boston, 1893, a member of the Massachusetts Medical Society, died at his home in Salem, Mass., from consumption, October 20, after a long illness, aged 34.

Henry A. Cayley, M.D. Ecole de Medecine et de Chirurgie, Montreal, 1890, Butte, Mont., died at St. James' Hospital, Butte, October 24, twelve days after having been shot during a quarrel, aged 34.

Charles M. Strickler, M.D. Medical College of Virginia, Richmond, 1892, died at West Rockingham, Rockingham County, Va., October 28, from typhoid fever, after an illness of four weeks.

Hubert Sleeper, M.D. Dartmouth Medical College, Hanover, N. H., 1860, who retired from practice about fifteen years ago, died at his home in Meriden, N. H., October 22, aged between 65 and 70.

Marion B. Carter, M.D. University of Pennsylvania, Philadelphia, 1859, Richmond, Va., died at the home of his sister in that city, October 28, from pneumonia, aged 66.

Robert W. Murphy, M.D. Cooper Medical College, San Francisco, 1897, committed suicide by shooting himself through the head, October 21, while despondent, aged 28.

Henry C. Matthews, M.D. University of Vermont, Burlington, 1870, Brooklyn, N. Y., died suddenly from apoplexy, October 22, at Clifton Springs, N. Y., aged 61.

William J. W. Purnell, M.D., for half a century a practitioner of Milford, Del., died at his home in that place, October 19, after a long illness, aged 78.

Luke H. F. J. Masson, M.D. Faculté de Medecine, Paris, France, 1894, for several years a practitioner of San Francisco, died recently in Paris, aged 34.

Benjamin Lee Bird, M.D. University of Maryland, 1864, died near Leeland, Prince George County, Md., October 30, after eight weeks' illness, aged 60.

Ernest G. Carleton, M.D. College of Physicians and Surgeons, New York, 1892, Morenci, Ariz., dropped dead on the street, October 20, aged 37.

Erastus B. Bills, M.D. Yale University, 1854, a resident of Durant, Iowa, for 47 years, died suddenly at his home in that place, October 16, aged 74.

J. Franklin Appell, M.D. Harvard Medical School, Boston, 1866, died after a lingering illness, October 20, at his home in Lake City, Fla.

M. J. Belden, M.D. died at his home in Maquoketa, Iowa, October 27, from paralysis, after an invalidism of three years, aged 70.

Henry H. Lynch, M.D. New York University, 1878, died at his home in Jersey City, N. J., October 13, after a lingering illness.

James W. Davis, M.D. University of Tennessee, Nashville, 1888, died from fever at his home in Fayetteville, Tenn., October 24.

James D. Wade, M.D. New York University, 1866, of Williamsburg, N. Y., died suddenly from heart disease, October 21.

Keith Fonde, M.D. Medical College of Alabama, Mobile, 1894, of Citronelle, Ala., died in Mobile, October 10, aged 34.

John N. Greene, M.D. University of Michigan, Ann Arbor, 1889, died at Leslie, Mich., October 23, aged 51.

Deaths Abroad.

Prof. Albert Sigel, director of the Olga Sanatorium at Stuttgart, aged 62.——**Dr. A. Castro,** professor of surgery, and **Dr. M. G. del Solar,** professor of hygiene, at Buenos Ayres.——**Dr. Massoni,** interne in the hospital at Philippeville, Algiers, probably senior of all the internes in the world, as he was in his ninetieth year.——**Dr. A. Schwendt,** privat docent of laryngology and otology at Basle, October 12.——**Dr. J. Bockendahl,** professor of medical jurisprudence at Kiel, October 16, in his seventy-seventh year.——**Dr. W. Schwanert,** professor of chemistry and pharmacy at Greifswald, October 17, in his seventy-fifth year.

Dr. L. Laroyenne, professor of gynecology at Lyons, died there October 15, in his seventy-second year. His principal work has been on pelvic suppurations, surgery in children and various questions in obstetrics and gynecology. His intraperitoneal method of hysteropexy is well known. He was president of the International Congress of Gynecology at Amsterdam in 1900 and of various local organizations.

Dr. H. Eulenberg, a prominent German authority on matters of hygiene, died at Bonn in October, aged 88. He was the founder of the *Correspondenzblatt* and of the *Archiv für Psychiatrie,* and was one of the editors of the *Vierteljahrsschrift für gericht. Med.* for eighteen years.

Manuel Carmona y Valle, M.D., City of Mexico, director of the College of Medicine in that city, died at his home in the City of Mexico, October 23.

IN TAPPING the chest in fat subjects, it is well to remember that a line drawn horizontally from the nipple around the chest passes over the sixth intercostal space midway between the sternum and the spine.—*Inter. Journal of Surgery.*

Miscellany.

Baccelli on Malaria Without Hematozoa to be Found in the Blood.—In a recent address Baccelli observed that the theory in regard to mechanical injury caused by malaria germs is untenable. Severe malarial fevers frequently occur in which it is impossible to discover the hematozoa in the blood in the first few days. In other cases they appear, but in such scanty numbers that there can be no connection between the quantity of the germs and the severity of the symptoms. The parasites may also exist in the blood in large numbers, but if they have not attained the phase of sporulation or segmentation they are not febrogenic *per se*. One can die of malarial infection without the familiar forms of the hematozoon being found in the blood. He knew a young privat docent who was working in a laboratory with several professors whose names are famous. The young man was seized with a subcontinuous fever, but as his blood was constantly free from any trace of hematozoa the hyperscientific professors attributed his illness to anything rather than to malaria and he was progressing from bad to worse until an outside friend insisted on his taking quinin and he was promptly restored to health. Golgi denied the possibility of such cases, but Baccelli succeeded in convincing him by numerous examples that patients will die of malaria, with no hematozoa in the blood, if they are not given quinin. Golgi in a recent letter confessed that the "clinic had conquered the theorist." The clinicians of to-day can not be made to believe that malaria is contracted exclusively from mosquito bites, Baccelli observes. Both he at Rome and Gerhardt at Berlin have reproduced malaria in a healthy subject by inoculating him with blood from a malarial patient, even to the special types of the malarial fever. Mosquitoes had nothing to do with these experiments. The intravenous application of quinin is now in current use in Italy. Baccelli reported in 1900 30 cases of pernicious malaria all cured by this means. Five died out of sixteen treated by subcutaneous injection of the quinin.

Medical Organization.

No Change in Qualification for Membership.

Immediately after the Saratoga meeting of the American Medical Association, the newspapers and a few medical journals contained accounts of changes made in regard to admission of members, which, judging from the letters that have been and are still being received at this office, have been believed by many. These accounts stated that hereafter homeopaths, eclectics, etc., were to be admitted, and that all opposition to sectarian system of practice was at an end. The American Medical Association neither made any changes nor were any suggestions regarding the matter brought up for consideration. The regulation regarding membership is left to the state and territorial associations as it always has been. Many of these, however, have recently modified their constitutions, admitting to membership those who have practiced sectarian medicine, provided they renounce all allegiance to sectarianism. The by-law of the Michigan State Medical Society, published last week, covering admission to membership, says: "Every reputable and legally registered physician, who is practicing, or who will agree over his own signature to practice, non-sectarian medicine only, and to sever all connection with sectarian colleges, societies and institutions, shall be entitled to membership." This slightly modifies Section 5, of Chapter XII of the Constitution for State Societies, as prepared by the Committee on Organization of the American Medical Association, which is as follows:

"Each county society shall judge of the qualification of its own members, but, as such societies are the only portals to this association and to the American Medical Association, every reputable and legally registered physician who is practicing, or who will agree to practice, non-sectarian medicine shall be entitled to membership. Before a charter is issued to any county society, full and ample notice and opportunity shall be given to every such physician in the county to become a member."

Already a considerable number of those who had formerly practiced sectarian medicine have openly renounced allegiance to any school and have associated themselves with regular societies.

State Medical Society Lecturers—A Factor in Organization.

Any real organization of the medical profession of a state must rest on the pleasure and profit it actually renders the individual physician. That state will soonest have the best organization which can convince every individual that it is working for his interest. Too often the individual physician has been the victim of "suckers" who have extracted his life-blood without adequate return. If he has not suffered himself he has observed the operation on some of his fellows, and so is disinclined to submit to a similar procedure. But in the scheme of organization, whose great apostle is Dr. J. N. McCormack of Bowling Green, Ky., an honest effort is made to inaugurate mutual helpfulness as the bond of organization.

As to the ways by which this shall be manifested, there is ground for honest difference. But once the principle be accepted, details readily follow. To suggest a new way is the object of this note. It is in brief the appointment of a corps of lecturers by the state society, who shall give one or more lectures before county societies, at such time as may be agreed on.

To the local society will thus come a fresh face, a new teacher, along other lines than is usual. To the profession of the state, outside medical colleges will come the opportunity to speak and talk with fellow physicians and the reputation of being selected by the state society for this purpose. This will utilize some of that restless energy which is likely planning a new medical college. The state society will thus indicate its interest in the local societies. The state and local society and the lecturer are benefited, and forces which otherwise were wasted or worse are utilized for the general betterments.

As the members of the college faculties are already sufficiently well known it may safely be left to the local societies to invite these when so desired.

In a brief space it is impossible to elaborate the plan, but if its value be granted details are readily arranged so that abuses would be prevented, and the largest effectiveness secured.

Thus the councilor of each district would be the person whose advice would be invaluable in knowing the proper lecturers for the several counties in his district, and all the councilors could safely be entrusted with minor details.

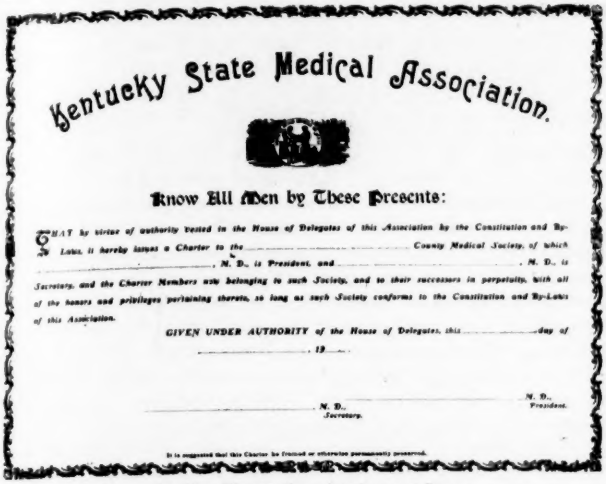
The nearer the lecturer was to the society he was to address the less the traveling expenses and loss of valuable time. The selection of, say two lecturers for each live county society, would make it possible to arrange from two to four lectures at some convenient season. Probably it might be more convenient to have two of these on one day. This is a minor matter, however, after the acceptance of the general principle that thus the state society could increase its solidity with its individual members.

There is nothing in the plan that forbids the securing men more distinguished than found in any district, for some of the meetings. Nor does it encroach on the activities of the individual members in writing and discussing papers. It simply proposes to broaden the old methods of securing to the individual post-graduate instruction, within his own county. It proves that the state society is putting forth additional effort for the benefit of all its members, and so stimulates them to make fitting response. It gives those able and willing to teach a chance, without starting a new college. It seeks to increase the training of those in the field, rather than augment the present overcrowding by the making of new physicians. It is the writer's belief that state organization would be materially promoted by the tactful administration of post-graduate instruction in each county society along the lines suggested.

LEARTUS CONNOR, Detroit.

Charters for County Societies.

We have received several requests for information in regard to how blank charters should be made out. We reproduce below the charters gotten up and used by the Michigan State Medical Society and the Kentucky State Medical Society.



Kentucky State Medical Association.

Know All Men by These Presents:

THAT by virtue of authority vested in the House of Delegates of this Association by the Constitution and By-Laws, it hereby issues a Charter to the _____ County Medical Society, of which _____, M. D., is President, and _____, M. D., is Secretary, and the Charter Members now belonging to such Society, and to their successors in perpetuity, with all of the honors and privileges pertaining thereto, so long as such Society conforms to the Constitution and By-Laws of this Association.

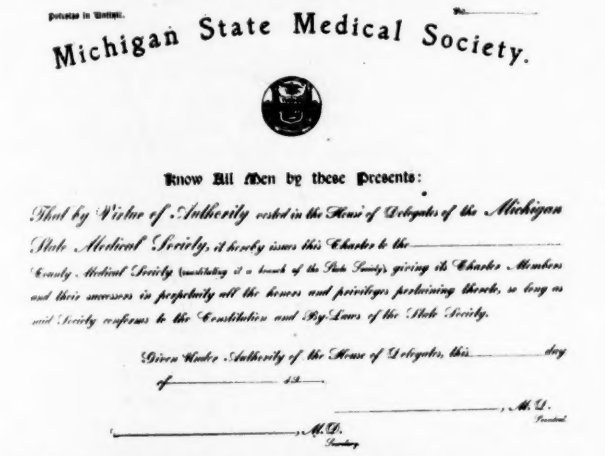
GIVEN UNDER AUTHORITY of the House of Delegates, this _____ day of _____, 19__.

_____ M. D., Secretary. _____ M. D., President.

It is suggested that this Charter be framed or otherwise permanently preserved.

The small type in the Kentucky charter reads:

"That by virtue of authority vested in the House of Delegates of this Association by the Constitution and By-laws, it hereby issues a Charter to the _____ County Medical Society, of which _____, M.D., is President, and _____, M.D., is Secretary, and the Charter Members now belonging to such Society, and to their successors in perpetuity, with all of the honors and privileges pertaining thereto, so long as such Society conforms to the Constitution and By-laws of this Association."



Printed in Detroit. No. _____

Michigan State Medical Society.

Know All Men by these Presents:

That by Virtue of Authority vested in the House of Delegates of the Michigan State Medical Society, it hereby issues this Charter to the _____ County Medical Society (constituting it a branch of the State Society), giving its Charter Members and their successors in perpetuity all the honors and privileges pertaining thereto, so long as said Society conforms to the Constitution and By-Laws of the State Society.

Given Under Authority of the House of Delegates, this _____ day of _____ 19__.

_____, M. D., President.

_____, M. D., Secretary.

The small type in the Michigan charter reads:

"That by virtue of authority vested in the House of Delegates of the Michigan State Medical Society, it hereby issues this Charter to the _____ County Medical Society (constituting it a branch of the State Society), giving its Charter Members and their successors in perpetuity all the honors and privileges pertaining thereto, so long as said Society conforms to the Constitution and By-laws of the State Society."

The Vermont State Medical Society.

The Vermont State Medical Society has increased its membership 60 per cent. during the past year, according to the secretary, Dr. Geo. H. Gorham.

Lapeer County (Mich.) Medical Society.

The physicians of Lapeer County met at Lapeer, October 15, and organized this society, to be in affiliation with the Michigan State Medical Society. Dr. Hugh D. McColl, Lapeer, was elected president; Dr. William J. Kay, Attica, vice-president; Dr. Herbert E. Randall, Lapeer, secretary, and Dr. George W. Stone, Metamora, treasurer.

Clay-Becker (Minn.) Medical Society.

At a meeting of the physicians of Clay and Becker counties, at Moorhead, October 23, this society was organized under charter by the Minnesota State Medical Society. The following officers were elected: President, Dr. Frank H. Alexander, Barnesville; vice-president, Dr. Leonard C. Weeks, Detroit, and secretary and treasurer, Dr. Leon W. Hyde, Moorhead.

Societies.

COMING MEETINGS.

Oklahoma Territory Medical Association, Guthrie, Nov. 11, 1902.
Southern Surgical and Gynecological Association, Cincinnati, Nov. 12-14, 1902.
Tri-State Medical Society of Mississippi, Arkansas and Tennessee, Memphis, Tenn., Nov. 11-13, 1902.
Indian Territory Medical Association, Muskogee, Dec. 2-3, 1902.
Western Surgical and Gynecological Association, St. Joseph, Mo., Dec. 29, 1902.

Orange Mountain (N. J.) Medical Society.—At the meeting of this society at Orange, October 25, the address of the evening was delivered by Dr. William Osler, Baltimore, on "Errors in the Diagnosis of Typhoid Fever."

Tri-State Medical Association of Mississippi, Arkansas and Tennessee.—The nineteenth annual meeting of this association will be held at Memphis, Tenn., November 11, 12 and 13, under the presidency of Dr. James B. McElroy, Stovall, Miss.

Fond-du-Lac County (Wis.) Medical Society.—This society, originally organized in 1868, was reorganized, October 22, at Fond-du-Lac, with Dr. John S. Hall, Ripon, president; Dr. J. Henry McNeel, Fond-du-Lac, vice-president, and Dr. Flora A. Read, Fond-du-Lac, secretary and treasurer.

Sanilac County (Mich.) Medical Association.—This association was organized at Carsonville, October 17, with the following officers: Dr. Harvey W. Smith, Carsonville, president; Dr. Thomas S. Kingston, Croswell, vice-president, and Dr. George S. Tweedie, Sanilac Center, secretary and treasurer.

Northwestern Iowa Medical Association.—This association met in annual session at Carroll, October 16, and elected Dr. James E. Conn, Ida Grove, president; Dr. William J. Findley, Sac City, vice-president; Dr. Daniel W. Wheelwright, Odebolt, secretary, and Dr. Daniel J. Townsend, Lohrville, treasurer.

Fulton County (Ill.) Medical Society.—At the annual meeting held in Canton, October 7, Dr. William F. Roberts, Norris, was elected president; Dr. Paul S. Scholes, Canton, first vice-president; Dr. William Plummer, Farmington, second vice-president, and Dr. Frank M. Harrison, Bryant, treasurer. Dr. David S. Ray, Jr., Cuba, was re-elected secretary.

San Angelo District (Texas) Medical Society.—At the meeting of this society in San Angelo, October 14, Dr. Samuel L. S. Smith reviewed in his presidential address the history of medical practice in San Angelo. Dr. Fortunatus B. Magruder was elected president; Dr. L. C. G. Buchanan, secretary, and Dr. Charles T. Cooper, treasurer, all of San Angelo.

Red River Valley District and County (Minn.) Medical Association.—This association was organized by a number of Red River Valley physicians who met for this purpose at Crookston, October 24. Dr. Charles E. Dampier, Crookston, was elected president; Dr. George S. Wattam, Warren, vice-president, and Dr. Halvor Holte, Crookston, secretary and treasurer.

Iowa State Association of Railway Surgeons.—This association held its ninth annual meeting at Des Moines, October 22 and 23. Des Moines was selected as the next place of meeting and the following officers were elected: Dr. Ira K. Gardner, New Hampton, president; Dr. Benjamin Thompson, Tama, vice-president; Dr. Albert B. Deering, Boone, secretary, and Dr. William J. Williams, Adel, treasurer.

Idaho State Medical Society.—This society met at Moscow, October 9 and 10. The principal business transacted was the formation of the North Idaho Medical Society, including the five northern counties in a district organization, which it is expected will hold semi-yearly meetings. The following officers were elected: President, Dr. Charles L. Grittman, Moscow; vice-president, Dr. Isaac S. Collins, Burke, and secretary, Dr. C. D. Parsons, Moscow.

Santa Fe Railway Medical and Surgical Society.—At the annual meeting of this society in Topeka, Kan., October 11, the following officers were elected: President, Dr. William L. Smith, Streator, Ill.; vice-presidents, Drs. Daniel L. Woods, Dighton, Kan.; James H. Wroth, Albuquerque, N. M.; Emmett C. Chapman, Fort Madison, Iowa, and Dr. George W. Miel, Denver, Colo.; secretary, Dr. Pascal W. McConnell, Topeka, and treasurer, Dr. John D. Freeman, Topeka.

Big Four Railway Surgeons' Association.—The ninth annual meeting of the surgeons of this railway system was held in Columbus, October 16. The following officers were elected: Dr. Samuel L. Ensminger, Crawfordsville, Ind., presi-

dent; Drs. Cyrus W. Chidester, Delaware, Ohio; Charles F. Smith, Kankakee, Ill.; Fred R. Belknap, Niles, Mich., and Thomas W. Moorhead, Terre Haute, Ind., vice-presidents, and Dr. Thomas C. Kennedy, Shelbyville, Ind., secretary and treasurer.

Brainard District (Ill.) Medical Society.—At the regular meeting of this society, held in Lincoln, October 23, the leading question for general discussion was: "What Is to Become of the Brainard District Medical Society?" It was the unanimous opinion that the society organization should be continued. It was voted to erect a suitable stone over the grave of Dr. Katherine Miller, who served so many years as secretary of the society. The next meeting will be held in Mason City in January, 1903.

New Haven County (Conn.) Anti-Tuberculosis Association.—This association has been incorporated by Drs. Oliver T. Osborne, Henry L. Swain, Francis Bacon, Frank W. Wright and John P. C. Porter of New Haven; Dr. Carl E. Munger, Waterbury, and others, without capital stock. The object of the association is to establish and maintain in New Haven County a sanitarium for the treatment of curable cases of pulmonary tuberculosis, and to encourage and aid all efforts put forth for the suppression and prevention of the disease.

Thurber Medical Association.—This association held its annual meeting at Milford, Mass., October 16. Dr. Nathaniel C. B. Haviland, Williston, delivered the presidential address on "The Physician; What He Owes to Himself," and resolutions were adopted on the death of Dr. George King, Franklin. The following officers were elected: Dr. Charles B. Hussey, Franklin, president and orator; Dr. Emmet W. Barry, Whitinsville, vice-president; Dr. Ambrose J. Gallison, Franklin, secretary; Dr. N. W. Sanborn, Bellingham, treasurer, and Dr. Christopher D. Albro, Milford, librarian.

Park Region District and County (Minn.) Medical Society.—Nearly a score of physicians met in Fergus Falls, October 22, to organize this society. All physicians who practice non-sectarian medicine are eligible. The territory includes Wilkin, Grant, Douglas and Otter Tail counties. The object is fraternity and improvement. The following officers were elected: Dr. Thomas N. McLean, Fergus Falls, president; Dr. John Livingston, Pelican Rapids, vice-president; Dr. Eugene A. Hensel, Alexandria, secretary, and Dr. Walter E. Truax, Breckenridge, treasurer.

Franklin County (Pa.) Medical Society.—This society held its seventy-seventh annual meeting at Wolf Lake, Chambersburg, October 14. The following officers were elected: President, Dr. A. Barr Snively, Waynesboro; vice-presidents, Drs. J. Burns Amberson, Waynesboro, and Oliver P. Stoey, Roxbury; recording secretary, Dr. John J. Coffan, Scotland; corresponding secretary, Dr. H. Clay Devilbiss, Chambersburg; treasurer, Dr. David Maclay, Chambersburg, and censor, Dr. Theo. H. Weagley, Marion. The meeting closed after a banquet in the evening, at which Dr. T. H. Weagley presided as toastmaster.

International Association of Hospital Superintendents.—This association held it fourth annual session in Philadelphia, October 14, 15 and 16. "Hospital Organization," "Hospital Construction," "Hospital Reports and Records," "Dispensary Service," and "Hospital Equipment" were among the subjects discussed. The association declared itself against the use of hospitals to pay political debts. Two papers were read on politics in hospitals, and a general discussion followed. Papers and speakers equally condemned the practice, which, they said, was not uncommon among politicians, of redeeming promises by placing henchmen in hospitals. The officers elected were: President, John Fehrenbatch, superintendent of the Cincinnati Hospital, Cincinnati; vice-president, Dr. Charles O'Reilly, superintendent General Hospital, Toronto, Canada; secretary, Daniel D. Test, superintendent Pennsylvania Hospital, Philadelphia; treasurer, A. W. Shaw, superintendent Harper Hospital, Detroit. It was decided to hold the next meeting in Cincinnati, October 20, 21 and 22, 1903.

CONFERENCE OF STATE AND PROVINCIAL BOARDS OF HEALTH OF NORTH AMERICA.

Seventeenth Annual Meeting, held at New Haven, Conn., Oct. 28 and 29, 1902.

Under the Presidency of Dr. H. M. Bracken, Minneapolis.

Report of the Committee on Communicable Diseases.

DR. B. STANTON, Cincinnati, in the absence of the chairman, presented the following list of diseases believed to be communicable, dangerous to the public health and such as boards of health may properly endeavor to prevent: Typhoid fever, typhus fever, smallpox, chicken-pox, measles, scarlet fever, whooping cough, diphtheria, influenza, cholera, yellow fever, bubonic plague, mumps, German measles, glanders, hydrophobia, malaria, epidemic cerebrospinal meningitis, pneumonia, puerperal fever, epidemic dysentery, erysipelas, beri-beri, ankylostomiasis, leprosy, tetanus, anthrax, actinomycosis, trichinosis, trachoma, scabies, syphilis and gonorrhea.

After considerable discussion this report was adopted. The conference also discussed and adopted a new constitution.

Production and Control of Vaccine Virus and Antitoxins.

DR. U. O. B. WINGATE, Milwaukee, first discussed the commercial element relative to vaccine virus, antitoxin, etc. In his experience there had been considerable difficulty with the vaccine virus. Whenever an outbreak of smallpox occurred it was a serious thing to get a supply of virus to use and then find it had no effect, and those who were exposed, who might be protected by successful vaccination, were not protected because the virus was impure. He thought some measure should be taken whereby, if vaccination was urged, a sufficient amount of protection would be given to the public, so as to obtain its confidence. He quoted from Theobald Smith, who refers to the practice that exists on the Continent. Each state or state division assumes the responsibility of preparing the vaccine virus itself, and the national government appoints inspectors, provides vaccine plants, under whose supervision the virus is prepared, tested and officially stamped, the same being done with regard to antitoxin in Germany.

As we have now a national public health organization, well equipped with experts, Dr. Wingate thought it would be practicable to have agents appointed to inspect the products of vaccine virus, and perhaps the other products, or some means might be adopted by which we could say to the public that these products are safe to use, and that they are efficacious. He did not think this could be said now of these products at all times. He believed that any recommendations which might emanate from the conference would have considerable influence in establishing a system of this kind.

Massachusetts had been producing its own antitoxin for a number of years, with good results. This is certainly a step in the right direction.

Some Questions To Be Answered in Dealing with Smallpox.

DR. C. O. PROBST, Columbus, Ohio, stated that in Ohio since the present epidemic began, 14,224 cases of smallpox had been reported, with 376 deaths. This was probably considerably short of the actual number of cases, for many had doubtless occurred that were never recognized or reported as smallpox.

The main difficulty at present is from the people, especially the merchants, who are unwilling to accept the diagnosis of smallpox made by the local physicians. The Ohio State Board of Health appointed ten experienced physicians as medical inspectors, paying them $10 a day and expenses. When the diagnosis of smallpox was made locally, the board insisted that the local authorities should accept it, and if called on to send someone to verify the diagnosis, the local authorities were made to pay the expense. Should the state or community pay this expense? The community usually receives the greater part of the benefit. A prompt diagnosis may prevent an epidemic. If the disease is not recognized as smallpox, or not treated as such, it is carried to other, perhaps distant, communities. Dr. Probst suggested a basis of division to be made between state and local responsibility in these cases.

Dr. Probst thought the State Board of Health should have authority to modify or set aside a local quarantine regulation, but it should use this power only in urgent cases.

He presented a plan whereby a state board of health might possibly give reasonable assurance of purity of vaccine virus. The Ohio board contemplated putting such a plan into operation, and was holding it in abeyance, hoping to have it criticized at this meeting. Two vaccine propagators, and a third might be added, are willing to enter into this arrangement. They will furnish once a month, or as often as necessary.

samples of two or three lots of vaccine virus. The size of a lot would depend on the general demand, and might be the product of one heifer, or the mixed product of several inoculated on the same day. The lots would be numbered. A sample of each lot would be examined for the number of bacteria and presence of pus organisms. Possibly a test would be made for the tetanus bacillus. The methods of examination would be published and announced, when the sample passed muster, that lot so-and-so had been examined, produced by such-and-such propagator, and the sample had been found free from pathogenic organisms. The propagator on his side would agree that any person in Ohio ordering virus of a particular lot should receive that virus and no other, unless notified to the contrary. He would not be bound to hold this virus, to his loss, specially for the Ohio trade, but would endeavor to keep a supply of it on hand.

This plan has suggested itself to the board of Ohio because of the great opposition to vaccination, occasioned largely by the lack of public confidence in the purity of commercial vaccine. The exaggerated statements of the bad results from vaccine in Cleveland, and the report of several deaths there from tetanus credited to vaccination even by the medical profession, made it highly desirable that the people of Ohio should in some way be given assurance of the purity of virus used.

DISCUSSION.

Dr. Samuel W. Abbott, Wakefield, Mass., in opening the discussion on these two papers, stated that the State Board of Health of Massachusetts had examined the products of several private producers of antitoxin in 1896, and found some of them absolutely worthless, as sold in open market. Speaking of the experience of his own state on the topic of antitoxin production, he said, 1, about 180,000 packages had been produced in the nearly eight years of production up to the present date. 2. Nearly one-quarter million dollars had been saved to the state, the principal portion of which would have gone out of the state to private producers. 3. Several thousand lives had been saved which might otherwise have been lost through inability to pay the cost of life saving. 4. No untoward accidents or injuries reported in the state from the use of antitoxin in the eight years. 5. All parties absolutely satisfied with state production, including the physicians and boards of health who used the product, and the people for whose benefit it was used, and for the saving of their lives and those of their children. No one was discontented except the few who desire a change for commercial reasons only.

Dr. H. D. Geddings, Washington, D. C., said that the public, in buying antitoxin, was entitled in equity and in justice to receive what it paid for as advertised on the labels. To sell a serum represented to contain 2000 antitoxin units to the cubic centimeter, and then have it found on test to contain between 1000 and 2000 was certainly delivering goods under false pretenses.

In regard to vaccine virus, if there was on the market to-day a truly antiseptic, aseptic or germ-free vaccine virus, the hygienic laboratory of public health of the Marine-Hospital Service was not able to purchase it in open market. Samples of every virus that was obtainable were submitted to tests in the hygienic laboratory, the result of these examinations showing that none were truly aseptic or antiseptic, and that none were germ-free. He thought too much reliance had been placed on the alleged antiseptic property of glycerin.

Dr. Peter H. Bryce, Toronto, Ont., believed that vaccine virus from a commercial standpoint could be produced quite as well as by a government laboratory. In England no one handles government vaccine except the public vaccinators, who have received a certificate of efficiency from some educational vaccine establishment, of which there are twenty-five throughout England and Scotland. The public vaccinator is appointed by the government. He receives all articles from the national vaccine establishment, or as much vaccine as he proposes to use in a week.

He would not encourage the establishment of a national or federal laboratory or institute, where lymphs and serums could be manufactured, until he was perfectly sure the work of vaccination could be put into trained, certified hands, and the work done in such a systematic routine manner that there would be no question that the lymph will be used this week or next week, when it is fresh.

Dr. Gardner T. Swarts, Providence, R. I., said that if state boards of health were large enough and could obtain a sufficient appropriation, or the state was large enough to warrant an appropriation to carry on the manufacture and production of vaccine virus and antitoxins, it was all very well. When it came to a small state, like Rhode Island or Delaware, the amount of appropriation needed would be so small that it would be impracticable for the state to control an institution of this kind. If these products could be manufactured by the national government, he would have some assurance, but the question arose, as in the case at St. Louis, whether state boards or city boards, who were controlling these products, would not fall into the hands of political chimera, and the result would be that those who produced the virus were not responsible parties and the state might suffer as a consequence. There should be some control whereby these institutions could be subjected to inspection and their products.

Dr. John Guiteras, Havana, Cuba, said that in Cuba there was a central station for the preparation of vaccine, which was sent all over the island, handled by state officials who were vaccinators, and during the last two years compulsory vaccination had been carried out, with the result that smallpox had not been able to gain a foothold in Cuba, although the island was surrounded by countries in which smallpox was prevalent.

Report on Vaccination.

The whole subject was referred to a committee, consisting of Drs. Wingate, Probst and Bryce, which subsequently presented the following report, which was adopted:

1. That vaccination may be defined as follows: An inoculation by scarification, puncture or injection beneath the epidermis, of a vaccine which produces, with some constitutional disturbance, the typical vaccine vesicle, which leaves, after the pock has healed, its characteristic scar.

2. That in order to obtain the most satisfactory results, vaccine must be produced either by federal, state, or provincial officials, or by private producers under the closest supervision of qualified government officials.

3. That for the greatest protection against smallpox, state and provincial laws should provide machinery whereby certified public vaccinators must be appointed for the systematic vaccination by house-to-house visitation, of all children born during any year, and at public stations or otherwise of such others as circumstances may make necessary.

4. That the evidence of successful vaccination of all school-children naturally forms a part of any system of public vaccination and certificates of such should be accepted only when signed by a municipal or local health officer.

5. That in order that the best results may be obtained, it is essential that medical colleges should be urged to provide for thorough instruction in the theory and practice of vaccination, and that all licensed physicians must hold certificates of having had practical instruction in the operation of vaccination in medical colleges, dispensaries, or public vaccine stations.

Election of Officers.

The following officers were elected for the ensuing year: President, Dr. Irving A. Watson, Concord, N. H.; vice-president, Dr. John Guiteras, Havana, Cuba; secretary, Dr. Gardner T. Swarts, Providence, R. I.; treasurer, Dr. James A. Egan, Springfield, Ill.

The time and place for holding the next annual conference were left to the executive committee.

(To be continued.)

THE NEW YORK STATE MEDICAL ASSOCIATION.

Nineteenth Annual Meeting, held in New York City, Oct. 20-23, 1902.

President, Alvin A. Hubbell, M.D., Buffalo, in the Chair.

The first session was an executive one. The important features have already appeared in The Journal, i. e., the acceptance of the report of the joint committee on conference of the two state medical organizations, the adoption of a plan of associated medical defense for the benefit of members sued for alleged malpractice, and the annual election of officers.

The Pathogenesis of Eclampsia.

DR. FREDERICK P. HAMMOND, New York City, read this paper on the second day. He reviewed the various theories advanced to explain the occurrence of eclampsia, and pointed out the necessity of judicious prophylaxis. The morning meal of the pregnant woman should consist of an abundance of fresh fruit, with weak tea, coffee or water, but no meat. Only at the midday meal should red meat be permitted. When headache, disturbance of vision, or vertigo supervene, the patient should be at once put on a diet consisting of milk with some shell-fish broths, and meat extracts should be carefully avoided. The judicious use of cathartics, with proper exercise and warm baths twice a week formed an important part of the régime of pregnancy. To avert an attack of eclampsia when imminent, he thought it was best to give chloral hydrate.

DR. WILLIAM E. SWAN, Saratoga Springs, read a paper on "Bacterial Flora of the Vaginal and Cervical Canal in Health." If a healthy vagina becomes infected by virulent organisms it will rid itself of these in from 6 to 36 hours, but if Nature's process is interfered with by the use of antiseptic douches this cleansing period may be extended to 20 hours or even three days.

Treatment in Gynecology from a Medical Standpoint.

DR. MARY GAGE-DAY, Kingston, said that in the local treatment of women prior to the menopause she found iodin, ichthyol, glycerin and boric acid specially valuable, the ichthyol being particularly well suited for those cases in which tenderness was a prominent feature. For women past the menopause the following mixture seemed better adapted: Irish moss, half an ounce; glycerin, two drams; alcohol, four ounces; boric acid, two ounces; water sufficient to make one quart. When properly made this was a bland mixture having marked healing power.

DR. J. RIDDLE GOFFE, New York City, said that the proper treatment of uterine fibroids was immediate removal by operation, whether the tumor was large or small. Most cases of fibroids complicating pregnancy result in a normal delivery at term. The electrical treatment of fibroids is not only inefficient but far from being harmless.

The Repair of Lacerations of the Pelvic Floor.

DR. JAMES HAWLEY BURTENSHAW, New York City, questioned if the majority of modern operations on the perineum really restored the pelvic floor to its normal condition. The essential point is to freshen the edges of the torn muscles and closely approximate them by sutures. Special stress was laid on the important part played by the fascia of the levator ani muscle.

Etiology of Colds.

DR. JAMES J. WALSH, New York City, opened the symposium on colds with this paper. He insisted that cold was only a predisposing factor, and that the chief element was a microbic infection. Going quickly from a heated theater to the cold air outside causes congestion of the upper air-passages and affords a good opportunity for an attack by the numerous microbes that had found lodgment while in the hot and crowded auditorium.

DR. GEORGE F. COTT, Buffalo, described the symptomatology.

The Treatment of Colds.

DR. A. ALEXANDER SMITH, New York City, said that if the person developing a cold had a body temperature of 100 F. or over, he should be kept in the house, or preferably in bed. At the outset, a moderate dose of quinin and Dover's powder is often useful, and in the early stage of a coryza the well-known "rhinitis" tablets may be used to advantage up to the point of producing a slight physiologic effect from the belladonna which they contain. In lithemic subjects the so-called alkaline treatment often acts admirably. This consists in giving one dram of bicarbonate of sodium in half a glass of water, flavored with a few drops of lemon juice, and repeating this dose in one hour. Ten grains of salicylate of sodium, repeated in one hour, and thereafter in doses of five grains every five or six hours, often produce a good result, provided the stomach bears it well. Where there is an excess of mucopurulent secretion, creosote or guaiacol carbonate should be given in small doses. For children under twelve years of age the author preferred to treat colds by giving small doses of tincture of aconite at frequent intervals. Where there was a tendency to recurrence, cod-liver oil, small doses of quinin or the vegetable bitters were appropriate.

DR. ALFRED STENGEL, Philadelphia, read a paper on "The Newer Relation of the Pancreas to General Medicine." He said that no reliance was to be placed on fatty diarrhea as an indication of disease of the pancreas, and glycosuria was by no means a constant symptom.

The Present Position of Gallstone Surgery.

DR. WILLIAM WOTKYNS SEYMOUR, Troy, read a paper which will appear in THE JOURNAL.

A Study of the Indications of Nephropexy.

DR. AUGUSTIN H. GOELET, New York City, insisted in this paper that nephropexy was indicated whenever the kidney was sufficiently prolapsed to be entirely below the border of the last rib in front. He had done 139 nephropexies on 112 patients without a fatality.

The Relation of Obesity to Improcreance.

DR. HEINRICH STERN, New York City, presented in this paper some statistics that he had fathered from personal observation bearing on this subject. They were, however, simply suggestive. The non-performance of the sexual functions might, he thought, by preventing expenditure of certain body material, facilitate the fattening process.

Unrecognized Toxic Insanities.

DR. T. D. CROTHERS, Hartford, Conn., asserted that a large percentage of the insanities occurring in the higher circles were both directly and indirectly due to the use of drugs and spirits, though often this cause was unrecognized until the later stages.

Strangulated Hernia in Children Under One Year.

DR. W. B. REED, Rome, N. Y., reported on the third day of the meeting a successful herniotomy on a male infant 27 days old. He had been unable to find on record more than eight other cases of strangulation occurring under one year of age.

DR. A. J. OCHSNER, Chicago, remarked that many of these cases were evidently not reported, for he felt that his own experience would show as many cases as the author had found recorded. Children certainly bear herniotomy very well.

Local Anesthesia in Radical Cure for Inguinal Hernia.

DR. J. A. BODINE, New York City, presented in this paper an experience with 48 cases of inguinal hernia operated on under local cocain anesthesia. It is important to specially cocainize the main nerve trunks. Of these three, the iliohypogastric is the easiest to recognize. The needle should be introduced in such a way just beneath the scarf epithelium of the integument as to produce edematization and acute anemia of the skin. In none of his cases was more than half a grain of cocain used. It was interesting to note that if a cocain solution were boiled for only a minute or two it would suffer no deterioration.

Radical Operations for the Cure of Cancer of the Stomach.

DR. WILLIAM J. MAYO, Rochester, Minn., on reviewing the literature, found that from 5 to 8 per cent. of the cases operated on radically should be expected to survive three years. Gastroenterostomy usually prolongs life about three months, and radical operation gives an increase of fourteen months over the unoperated. If the diagnoses are made sufficiently early these statistics should be greatly improved, as the stomach is a favorable organ, having a large blood supply from several sources. He would especially warn against wasting precious time in prolonged attempts at making accurate diagnoses by tests of the stomach contents. Inflation of the stomach is an aid to diagnosis, but should be done by means of a Davidson syringe and not by swallowing the two halves of a Seidlitz powder, as the latter is a dangerous procedure. In St. Mary's Hospital during the past ten years 213 operations had been done on the stomach, 126 for non-malignant disease, with a mortality of about 5 per cent., the 92 for malignant disease yielding a mortality of 10 per cent. He had himself done 20 pylorectomies with 2 deaths.

Surgery of the Stomach for the Relief of Non-Malignant Pathologic Conditions.

Dr. A. J. Ochsner, Chicago, read this paper. He said that he had himself operated on 27 patients for non-malignant disease of the stomach. The prognosis after perforation of a gastric ulcer is always bad, even though the operation be undertaken within twelve hours; hence it is far better to treat these cases surgically before the occurrence of perforation. It has been found that serious ulceration of the stomach takes place only when there is faulty drainage, and that as the stomach dilates the shape of the organ becomes altered in such a way as to still further interfere with drainage. Proper permanent drainage is best effected by an anastomosis between the lowest point in the stomach and the duodenum, about 40 cm. from the point at which the duodenum issues through the mesentery of the transverse colon. It is ordinarily not necessary to excise the ulcer.

President's Address.

Dr. Alvin A. Hubbell, Buffalo, took for his theme, "Reflections on Some of the Purposes and Work of the New York State Medical Association." After sketching the work of the association in general, he took up its loyalty to the code of ethics of the American Medical Association. This code, he said, placed no restrictions on any right action, yet it was necessary, for experience had demonstrated that it was unsafe to leave everything to an unwritten code.

Pathology and Bacteriology of Typhoid Fever.

Dr. George Blumer, Albany, pointed out that the earlier failures in attempting to isolate the typhoid bacillus from the blood arose from the fact that the technic was not such as to offset the germicidal action of the blood. These bacilli could now be demonstrated in the rose spots. As a rule they did not appear in the urine until the end of the second week, and were observed in about 29 per cent. of the cases. The typhoid bacilli had been found in the bile, usually reaching that secretion through the blood.

The Serum Reaction in Typhoid Fever.

Dr. Thomas Hastings, New York City, dealt with this part of the subject from a statistical point of view, and the figures which he quoted showed that positive Widal reactions, for the most part with a dilution of one in fifty, were obtained in about 95 per cent. of the cases.

Paratyphoid Fever.

Dr. Nathan E. Brill, New York City, read this paper. He said that in his original contribution on this subject five years ago he had reported 17 cases, giving the chief clinical features of typhoid, but failing to give the Widal reaction, and had then expressed the opinion that it was a distinct disease from typhoid. Since then a good deal more had been learned about these paratyphoids. In these cases the fever usually reached its height in five days, the blood showed no leucocytosis, and the duration was a little over two weeks. The marked apathy and the extreme prostration were prominent clinical features.

Dr. W. S. Thayer, Baltimore, reported five cases of arteritis and arterial thrombosis in typhoid fever.

The Modern Treatment of Typhoid Fever.

Dr. W. Gilman Thompson, New York City, said that our modern knowledge of the very wide distribution of the typhoid bacilli very greatly weakened the argument in favor of the administration of intestinal antiseptics. An initial dose of calomel is of benefit, but the frequent use of this drug throughout the disease is harmful and likely to cause salivation. Water should be given freely, and milk should be the chief diet, but when for any reason milk diet is not desirable, broths, egg albumin mixture and peptone preparations should be given. As soon as the temperature reaches normal or therabouts, soft-boiled eggs, junket, boiled rice and scraped beef may be successively added to the dietary. Undigested milk is as irritating as solid food. If the Brand bath treatment is employed at all, it should be in no half-hearted way, but with the chief object of stimulating the nervous system. When the temperature is 102.5 F. or over, a tub bath at 75 F. should be given for fifteen minutes, two nurses making frictions meanwhile. The speaker was positive that these tub baths were responsible for no serious complications. When intestinal hemorrhage occurred, food should be withheld from the stomach, or some digested beef preparation given. Tincture of opium should be given by the mouth in sufficient doses to keep the patient well under its influence. Suprarenal extract was sometimes, but by no means always, of service in these cases of intestinal hemorrhage. Saline infusion would sometimes save life.

Dr. Albert W. Preston, Middletown, reported an interesting case of typhoid infection, hemorrhagic typhoid pleurisy.

Advantages of Nitrous Oxid in General Surgery.

Dr. H. W. Carter, New York City, said this was the most difficult of all methods of inducing anesthesia, but the rapid and pleasant induction of narcosis, the complete recovery, the almost entire absence of vomiting or other unpleasant sequelæ and the general safety and efficiency of the method for lengthy administrations counterbalanced the expense of the method, the difficulty of its administration and the cumbersomeness of the apparatus.

A Standard Technic in Operative Surgery.

Dr. Edward Wallace Lee, New York City, entered a plea for greater uniformity in surgical technic to obviate the confusion which students at present experience.

Drs. A. J. Ochsner, William J. Mayo and J. J. Walsh, who discussed the paper, did not take kindly to the suggestions of the author, and expressed the opinion that as perfection had not yet been reached the proposed plan would hinder further progress.

Points in the Control of Emergency Hemorrhage, Both Medical and Surgical.

Dr. Robert H. M. Dawbarn, New York City, among other points discussed, called attention in this paper to his plan of treating hemorrhage in any inaccessible part of the body by sequestrating the blood in the limbs by means of a knotted towel twisted around the limb at its junction with the body. This so reduces the blood pressure as to make the patient feel faint; it is a temporary bleeding into one's own vessels, and after sufficient time has elapsed for the formation of a clot at the seat of hemorrhage, the blood is gradually allowed to return from the limbs into the general circulation. The constricting bandage should not be applied so tightly as to stop the pulse on the distal side of the bandage.

Dr. F. W. Higgins, Cortland, said that many cases of epistaxis could be controlled by pressure with the finger on a spot situated about one-third of an inch within the anterior nares.

Dr. A. J. Ochsner mentioned as a new treatment for hemophilia the giving of four to six whites of eggs three times a day.

Pneumonia from the Bacteriologic Standpoint.

Dr. A. C. Abbott, Philadelphia, opened the symposium with this paper. He said there was conclusive proof that the *Micrococcus lanceolatus* does produce spreading inflammatory exudates having all the characteristics of the exudate of acute pneumonia in man. There was apparently no relation between the virulence of the organism and the production of toxin.

Leucocytosis in Pneumonia.

Dr. Alexander Lambert, New York City, discussed this topic. He said that the intensity of the leucocytosis was not always in proportion to the severity of the symptoms, and that leucocytosis alone was of no value in prognosis. Mild cases usually showed a leucocytosis of 6,000 to 12,000; severe cases, 30,000 to 50,000. To be of much assistance the leucocytosis must be determined almost daily. In a study that he had made of the leucocytosis in 87 cases of acute lobar pneumonia it was found that when the leucocyte count was below 7,000, i. e., was persistently subnormal, it pointed almost invariably to a fatal termination. When resolution was delayed, the leucocytosis persisted, and when there was an extension of the pneumonic process in the same or in the other lung, the leucocytosis was increased. When empyema occurred as a complication there was apt to be a doubling of the leucocyte count.

Treatment of Pneumonia.

Dr. Joseph W. Grosvenor, Buffalo, concluded as follows: A mild pneumonia may easily recover without medicinal treat-

ment. Blood letting is only admissible in very robust persons having marked cyanosis and great dyspnea. Toxemia should be controlled by securing elimination of the toxins and increasing the vital resistance. Alcohol being a cardiac depressant is not useful in threatened heart failure. Serum therapy is still in an experimental stage.

The Finsen Light Treatment of Smallpox.

DR. FRANCIS P. KINNICUTT, New York, said that since 1894 the Finsen treatment of the suppurative stage of smallpox, i. e., by keeping the patient in a room from which the blue, violet and ultra-violet rays of light are excluded by the interposition of red fabric, had been given extensive trial, and with very encouraging results. The earlier the treatment was commenced the better the results, and it was essential to success that it be kept up uninterruptedly until the vesicles have all dried up.

The Roentgen Ray.

DR. EDEN V. DELPHEY, New York City, described briefly the more important pieces of apparatus in general use, and outlined the physics of the subject.

DR. CARL BECK, New York City, presented radiographs to illustrate what an important aid the Roentgen ray is in the treatment of fractures.

DR. CHARLES WARRENNE ALLEN, New York City, reported 50 consecutive cases of cancer treated by the Roentgen ray. The persons varied from 15 to 80 years; 22 were males. There were 33 cases of epithelioma of the rodent ulcer type and 10 cases of cancer of the breast, 7 of them recurrent. Only 8 per cent. were unimproved; 20 per cent. were improved, but still under treatment; 52 per cent. had been discharged as cured. The writer admitted that the *x*-ray might do decided injury aside from producing burns, as, for example, the production of a septicemia by the accumulation in the system of the toxins resulting from the breaking down of the tumor. The method was not to be used in all forms of cancer, and the improvement in appropriate cases is greater than could be obtained at present from any other known method.

DR. EDEN V. DELPHEY read a paper on "The Roentgen Ray in Gynecology."

DR. JOSEPH B. COOK, New York City, said that the results of *x*-ray examinations of the pelvis of a pregnant woman could not compare with those obtained by one skilled in obstetric palpation. It might possibly prove of value in cases of multiple pregnancy.

DR. WILLIAM JAMES MORTON, New York City, exhibited a small and comparatively inexpensive lamp which he said would do all the work of the large and complicated Finsen light. By substituting iron for carbon in the electric arc an abundance of ultra-violet rays was obtained. In the treatment of carcinoma by the *x*-ray he carefully avoided the use of screens, because he felt that a very wide application of this potent agent was essential to the best results.

DR. WILLIAM B. COLEY, New York City, said that after some experience in this field, he felt that the *x*-ray would prove chiefly useful as an aid rather than as a substitute for operation in cases of cancer. His experience had been that many of these cases recur after a short time. The application of the *x*-ray immediately after excision of the visible portions of a primary carcinoma seemed to him most important.

Election of Officers.

The following officers were elected for the ensuing year: President, Dr. Frederick Holme Wiggin, New York City; vice-president, Dr. William H. Thornton, Buffalo; secretary, Dr. Guy D. Lombard, New York City, and treasurer, Dr. Edward H. Squibb, Brooklyn.

OREGON STATE MEDICAL SOCIETY.

Twenty-ninth Annual Meeting, held at Portland, Ore., Sept. 10-12, 1902.

President, Dr. Charles J. Smith, Pendleton, in the Chair.

Welcome.

Mayor Williams of Portland delivered the address of welcome and spoke appreciatively of the value of the work of Oregon physicians and of the great advances made by the medical profession during the last few years.

Outdoor Treatment of Tuberculosis.

DR. EDGAR P. HERSHEY, Denver, Colo., presented a paper on "General Treatment of Tuberculosis," in which he enlarged on the advantage of breathing the open air. There is no special climate that will cure tuberculosis. What is needed is to get out in the open air. Let the patient eat his food, and become hardened to the climate. A large number of consumptives come to Colorado for treatment. There is one kind of a climate that is good for one class of patients and another for another. The main thing is to get out into the open air.

DR. HARRY LANE, Portland, discussed "The Outdoor Treatment of Tuberculosis." He also was in favor of the patient leading a rough outdoor life. "We should be very careful when out camping, though, to have a tent that will admit the air, or it will be worse than if we were in the house." He also spoke of the value of having roof gardens where the patients could enjoy the open air and be comfortable.

DR. WOODS HUTCHINSON thought "it should be made a penal offense for physicians to give drugs in the treatment of tuberculosis. It is an established fact that the open-air treatment is the only one that is valuable."

Typhoid Fever.

DR. ALBERT E. MACKEY, Portland, in his paper "Modern Methods of Diagnosis," discussed the best methods of diagnosing typhoid fever.

DR. HOLT C. WILSON, Portland, in his discussion of "The General Treatment," did not consider cold baths and cold applications a valuable means for lowering the temperature. These statements were combated vigorously by a number of members.

Surgical Treatment of Goiter.

DR. ANDREW C. SMITH, Portland, discussed this subject and said that the death-rate had been diminished from 40 per cent. to less than 1 per cent. by the evolution of operative technic. He dwelt on the value of making transverse incisions lower in the neck for cosmetic purposes and advised the local use of general anesthesia as it eliminates all danger of injuring the voice.

Appendicitis.

A symposium on this subject was held and the usual amount of discussion indulged in. The topic was divided as follows:

"Medical Aspects," Dr. Woods Hutchinson, Portland.
"Diagnosis," Dr. Kenneth A. J. Mackenzie, Portland.
"Surgical Treatment," Dr. Andrew C. Smith, Portland.
"Surgical Technic," Dr. George F. Wilson, Portland.
"Surgical Complications," Dr. Andrew J. Giesy, Portland.
"Prognosis," Dr. Jacob A. Fulton, Astoria.

Reorganization.

The draft of the constitution and by-lays presented last year was indorsed by the executive committee. This committee's work was to formulate rules and regulations by which county and district societies may be affiliated with the state medical society on the plan suggested by the American Medical Association.

The executive committee submitted its recommendations, with the following statement of the name and objects of the association:

The purpose of this association shall be to federate and bring into one compact organization the entire medical profession of the state of Oregon, and to unite with similar associations in other states to form the American Medical Association; with a view to the extension of medical knowledge, and to the advancement of medical science; to the elevation of the standard of medical education, and to the enactment and enforcement of just medical laws; to the promotion of friendly intercourse among physicians, and to the guarding and fostering of their material interests; and to the enlightenment and direction of public opinion in regard to the great problems of state medicine; so that the profession shall become more capable and honorable within itself, and more useful to the public in the prevention and cure of disease, and in prolonging and adding comfort to life.

Component societies shall consist of those county and district medical societies which hold charters from this association.

Portland vs. Multnomah.

After a hot debate it was decided that new members would be admitted to the Portland Medical Society hereafter by a

majority vote. A committee was appointed to have charge of the admission of new members, and their vote will be considered final. The American Medical Association recognizes but one medical society in a county, and in Portland there are two. The old Portland Medical Society, now known as the Portland City and County Society, gained recognition at the last meeting. In order, then, for the members of the Multnomah Medical Society to become members of the American Medical Association it will be necessary for them to change their membership.

Election of Officers.

The election of officers resulted as follows: President, Dr. H. Waldo Coe, Portland; vice-presidents, Drs. F. N. Van Dyke, Grant's Pass, J. A. Geisendorffer, The Dalles, and James P. Tamiesie, Hillsboro; secretary, Dr. Alexander D. Mackenzie, Portland, and treasurer, Dr. Mae H. Cardwell, Portland.

Banquet.

The meeting closed with the annual banquet at the Hotel Portland.

Portland was selected as the place of meeting for 1903.

ORLEANS PARISH (LA.) MEDICAL SOCIETY.

Stated Meeting, held at New Orleans, La.

Yellow Fever and Mosquitoes.

Dr. Oliver L. Pothier, New Orleans, who was a member of the recent United States Public Health and Marine-Hospital Commission on the Investigation of the Yellow Fever and Mosquitoes in Vera Cruz, gave a short account of his experiences. Yellow fever, he said, was endemic in Vera Cruz, and there was always plenty of material for investigation. Yellow fever that increased in the dry months, decreased in the wet period (April, May and June), began to increase in July and continued prevalent until the advent of cold weather (November and December). These facts were well explained by the theory of the mosquito in the propagation of the disease. During the dry season, mosquitoes *(Stegomyia fasciata)* were abundant, but during the wet season the nuisance abated. In July the insects began to swarm again.

The mortality of yellow fever in Vera Cruz was extremely high, due either to the virulent form of the disease, or, more likely, to lack of proper treatment in the hospitals. On admission the patient was given a dose of citrate of magnesia and an enema of permanganate of potash. After that he had practically no treatment. He was starved, but given an abundance of Vichy water. He might smoke or walk about the ward if he wished. The physicians of Vera Cruz were anxious to obtain means to prevent the disease and methods for accurate early diagnosis. They, therefore, warmly welcomed investigators. The government was willing and anxious to furnish all facilities. The patients were easily handled and submitted willingly to experiments.

Dr. Pothier preferred not to divulge any further information as to the commission's work than had already been given to the newspapers. He said, however, that the cause of yellow fever had been determined to their satisfaction. The *B. Sanarelli* was doomed. It stood in no etiologic relation to yellow fever. The work of Reed and Carroll as to the transmission of yellow fever by *Stegomyia fasciata* had been entirely corroborated. There still remained a great deal to be done, particularly in the way of confirmation and investigation and, more especially, even with regard to the question of quarantine.

The quantity of this variety of mosquito in Vera Cruz was enormous, due principally to the custom of storing drinking water in barrels all over the house. The barrels were literally alive with larvæ, some containing as many as 100 to 150 larvæ to the glassful. Malaria in Vera Cruz was prevalent in August and September and again in the spring. The hospitality and kindness of physicians had been very great; nothing had been left undone to accommodate the commission in every way.

Therapeutics.

[It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Gonorrheal Conjunctivitis.

Merck's Archives recommends the following silver salts in treatment of inflammatory conditions:

℞.	Largin	℥i	4
	Aq. destil.	℥vi	180

M. and dispense in amber-colored bottle. Sig.: Bathe the eyes freely with this, lukewarm, five times daily.

Largin contains 11 per cent. of silver and is soluble in about ten parts of water. It is reported as non-irritating and not precipitated by sodium chlorid or albumin.

Ichthargin may be used in the following strength:

℞.	Ichthargin	gr. xxx	2
	Aq. destil.	℥viii	240

M. and dispense in amber-colored bottle. Sig.: Bathe the eyes freely with this, lukewarm.

Ichthargin is a combination of silver and ichthyol, and contains about 30 per cent. of silver. It is soluble in water.

Eczema Due to Intestinal Intoxication.

Dr. Nelken, in *N. Y. Med. Jour.*, recommends the following in cases of intestinal autointoxication:

℞.	Hydrarg. chloridi mitis	gr. i	06
	Salol	gr. xx	1 30
	Guaiacol carb.	gr. xv	1
	Pulv. pepsini	gr. xxx	2

M. Ft. Chart. No. xii. Sig.: One powder to be taken three times a day. A restricted diet is recommended by the author; greasy food and sweets as well as fruits and pastry in any form should be forbidden. The following ointment is applied locally:

℞.	Aq. picis liq.	℥i	4
	Ung. aq. rosæ	℥i	30
	Ung. zinci oxidi	℥ii	60

M. Sig.: To be used locally night and morning; washing with plain water is forbidden, but twice a week water with which sufficient bran has been added to make it milky should be used, and the face kept clean with a cloth saturated with olive oil.

A Rubifacient Cataplasm.

The following is recommended by *Prov. Medical* as a local counter-irritant:

℞.	Barley pulverized	℥iii	90
	Vinegar	℥vii	28
	White of eggs No. iii.		
	Water, q. s.		

Mix cold and make a kind of paste to be spread on cloth and dusted with seven teaspoonfuls of powdered pepper, and apply locally.

Impetigo Contagiosa.

Dr. M. F. Engman, in *Pediatrics*, recommends the following in the treatment of impetigo contagiosa:

℞.	Sulphuris precip.		
	Zinci oxidi		
	Potassii sulphid, āā	℥i	4

M. Sig.: Apply locally night and morning.

Bunions.

These painful enlargements, according to the *Phil. Med. Times*, are amenable to treatment by applying static sparks and galvanic applications with cocain. If simply painful, a fine static spark drawn through the shoe will suffice. In making the static application, a point in the center of the bunion will be found to be anesthetic. Concentrate the sparks at this point until the patient feels the current. This may be repeated once or twice daily. The anodal spark has been used as a rule, but it seems to be the rapid vibrations that are

beneficial, consequently either electrode may be applied with the rapid vibration.

Dysmenorrhea.

The following combination is recommended in painful menstruation in which there is more or less inflammation present:

℞. Berberinæ phos. ..... gr. xii | 75
Tinct. hydrastis ..... ʒii | 8
Syr. simp., q. s. ad ..... ʒii | 60

M. Sig.: One teaspoonful every three or four hours.

Where there is ovarian involvement accompanied by dysmenorrhea the following is recommended by *Merck's Archives*:

℞. Ichthyol ..... ʒi | 30
Glycerini ..... ʒiii | 12
Aquæ, q. s. ad ..... ʒiv | 120

M. Sig.: Douche the vagina with hot water, then apply pledgets of cotton soaked in this mixture as far up as they can be borne and repeat every other day.

Malaria.

The following combination is recommended by V. P. de Sande in *El Med. Titul.* as a substitute for quinin where there is idiosyncrasy against this preparation:

℞. Tinct. iodi
Pot. iodidi, āā ..... ʒi | 4
Aq. destil. ..... ʒiii | 90

M. Sig.: One teaspoonful to be taken in a little water at the beginning of the chill and a second dose one half-hour later.

This remedy is said to be of special benefit when administered during the attack when the plasmodium is in the process of multiplication by segmentation.

Chlorosis in the Nervous and Hysterical.

The following combinations are recommended by Yeo in the treatment of chlorosis in nervous individuals:

℞. Ferri cit. ..... ʒi | 4
Pot. bromidi ..... ʒiiss | 10
Vini (malaga) ..... ʒviii | 240

M. Sig.: One tablespoonful three times a day.

The following may be taken in the pill form as a substitute for the above:

℞. Ferri valerianatis ..... gr. xx | 1 | 30
Ext. rhei. q. s.

M. Ft. pil. No. xx. Sig.: Two to ten to be taken daily.

Methyl Blue in Cancer.

The following formula has been recommended by Cucca and Ungaro, in *Centralblatt für Gyn.*, as a local application in the treatment of carcinoma of the uterus:

℞. Methyl blue ..... ʒiss | 6
Alcoholis (90 per cent.) ..... ʒiii | 12
Glycerini ..... ʒiii | 12
Aq. destil. ..... ʒvii | 210

M. Sig.: Apply locally to the cervix on tampons following curettement.

The authors state that a weaker solution of the foregoing combination can be used in the form of an irrigation for vaginal and intra-uterine irrigations. By this method of treatment hemorrhage has been checked for months and pain has been so relieved that morphin was not needed to give relief, and the progress of the disease was notably checked.

Chorea.

The following treatment of chorea, as recommended by Professor Comby of Paris, is summarized by *Med. News*:

Absolute rest in bed for at least fifteen days; relative isolation, no games, no intellectual work in order to establish cerebral repose; no wines or other alcoholics, no tea or coffee; only water or milk to drink, combined with a vegetable diet and in case of arsenic treatment absolute milk diet.

The medication is rather striking. He employs two drugs, arsenic or antipyrin; the arsenic is employed in the form of arsenous acid, which is given in frequent doses, very highly diluted, for eight to ten days. The dose of the drug ranges from one-half a grain (.0030 gm.) to two and a half grains (.15 gm.) daily at the height of the treatment, notwithstanding which the author has only once observed toxic effects. The tolerance, he states, depends on the manner in which the drug is administered, and on the fact that the kidneys are actively stimulated by the ingestion of large amounts of water. If antipyrin is used, he gives as high as eight grains (.50 gm.) at a dose, repeated according to the age of the child.

Ozone in Pertussis.

According to Louis Delherm in an abstract in the *Monthly Encyc. of Pract. Med.*, ozone is a specific in whooping cough and exerts a strong antispasmodic action during the stage of whooping. Given in inhalations of ten minutes three or four times a day it causes marked diminution in the number of paroxysms and seems to prevent recurrence. It decreases cyanosis and seems to aid in the amelioration of a complicating pneumonia. The time between paroxysms is frequently lengthened and the cough is attenuated in intensity, violence and duration. The treatment should be kept up two weeks at least, and it is perfectly harmless.

Medicolegal.

MASSACHUSETTS ACTS AND RESOLVES OF 1902.

Autopsies in Insane Hospitals.—Chapter 417 of the Massachusetts Acts of 1902, entitled "An act relative to autopsies in state insane hospitals and asylums," adds to Chapter 77 of the Revised Laws, entitled "of the promotion of anatomical science," a new section, numbered 5, which reads: Where the cause of death can not otherwise be determined the chief medical officer of the institutions named in section one shall have power to cause autopsies to be made on bodies unclaimed by relatives or friends, before surrendering the same to such persons and in such manner as are specified in Sections 1 and 2 of this act.

Investigations as to Vaccine Lymph.—Chapter 107 of the Resolves of the General Court (legislature) of Massachusetts of 1902 authorizes and requests the State Board of Health to report to the general court as soon as possible a plan for the production and distribution of pure vaccine lymph for free use in the commonwealth; also to report as to the quality of the vaccine lymph in use in the commonwealth during the past winter and at the present time, and as to the quality of the vaccine lymph produced or sold by private persons or corporations in the commonwealth, and the methods and conditions by and under which it is produced. Chapter 121 authorizes and directs the State Board of Agriculture to investigate as to the feasibility and probable cost of producing vaccine lymph at the Massachusetts Agricultural College, for free distribution within the commonwealth, and to report the result of such investigation, together with such recommendations as the board may consider advisable, to the general court on or before January 15, 1903.

Relative to Vaccination.—Chapter 190 of the Massachusetts Acts of 1902 amends Section 137 of Chapter 75 of the Revised Laws by striking out, after the word "whoever," the words "being over twenty-one years of age and not under guardianship," so that it now reads: "The board of health of a city or town if, in its opinion, it is necessary for the public health or safety, shall require and enforce the vaccination and re-vaccination of all the inhabitants thereof and shall provide them with the means of free vaccination. Whoever refuses or neglects to comply with such requirement shall forfeit five dollars." Section 139 of the chapter relative to exemptions is entirely stricken out and the following inserted in place thereof: Any person over twenty-one years of age who presents a certificate signed by the register of a probate court that he is under guardianship shall not be subject to the provisions of Section 137; and any child who presents a certificate signed by a registered physician designated by the parent or guardian, that the physician has at the time of giving the certificate personally examined the child and that he is of the opinion that the physical condition of the child is such that his

health will be endangered by vaccination shall not, while such condition continues, be subject to the provisions of Section 6 of Chapter 44 of the Revised Laws or of the three preceding sections of this chapter; and the parent or guardian of such child shall not be liable to the penalties by Section 136 of this chapter.

Expenses in Smallpox and Other Cases.—Chapter 213 of the Massachusetts Acts of 1902 provides that reasonable expenses incurred by the board of health of a city or town in making the provision required by law for persons infected with the smallpox or other disease dangerous to the public health shall be paid by such person or his parents, if he or they be able to pay, otherwise by the city or town in which he has a legal settlement, on the approval of the bill by the board of health of such city or town; and such settlements shall be determined by the overseers of the poor. If the person has no settlement such expense shall be paid by the commonwealth, on approval of bills therefor by the State Board of Charity. In all cases of persons having settlements a written notice sent within the time required in case of aid given to paupers, shall be sent by the board of health or by the officer or board having the powers of a board of health in the city or town where the person is sick, to the board of health, or to the officer or board having the powers of a board of health in the city or town in which such person has a settlement, who shall forthwith transmit a copy thereof to the overseers of the poor of the place of settlement. In case the person has no settlement such notice shall be given to the State Board of Health, in accordance with the provisions of Section 52 of Chapter 75 of the Revised Laws. No person for whose care and maintenance a city or town or the commonwealth has incurred expense in consequence of smallpox, scarlet fever, diphtheria or other disease dangerous to the public health shall be deemed a pauper by reason of such expenditure.

New Sanatorium for Consumptives.—Chapter 126 of the Resolves of the General Court (legislature) of Massachusetts of 1902 directs the State Board of Charity to investigate the following matters and to report thereon to the general court on or before January 15, 1903: 1. Is it necessary or expedient for the commonwealth to make additional provision for the care and treatment of consumptives? If so, should such provision be made by establishing one large new sanatorium or by establishing several smaller institutions, and, if several, should these be located in different parts of the commonwealth so as to provide for patients at sanatoriums comparatively near their places of residence? 2. Should the patients be furnished board and treatment without charge, or should a moderate charge, not exceeding the actual cost, be made for board? And, if the patients should be unable to pay for their board, should the cities and towns in which they have a legal settlement be required to pay therefor? 3. Where, in the opinion of the board, should a new sanatorium or new sanatoriums be established? 4. What would the board recommend as to the material, plan, manner of construction and details of such sanatorium or sanatoriums? If the board should conclude that it is advisable for the commonwealth to establish a sanatorium or sanatoriums the board is authorized to prepare a general plan of a building or buildings therefor, together with an estimate of the cost of constructing them, and such plan and estimate shall form part of the report to be made by the board to the general court. In carrying out the provisions of this resolve the board may expend, with the approval of the governor and council, a sum not exceeding two thousand dollars.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

Medical Record (N. Y.), October 25.

1 *The Urine from Each Kidney. Ferd. C. Valentine.
2 *The Most Frequent Form of Vaginal Hernia; Its Etiology and Treatment. Samuel W. Bandler.
3 *On the Eradication of Yellow Fever in Havana. Edmond Souchon.
4 *Some Early Stages of the Disease of Inebriety. T. D. Crothers.
4½ The X-Ray. Milton Franklin.
5 *Infectious Broncho-Pneumonia; A Report of Six Recent Cases. D. W. Wynkoop.

New York Medical Journal, October 25.

6 *Diseases of the Gall-Bladder. John B. Deaver.
7 *Experimental Gastritis; Early Pathological Changes. Fenton B. Turck.
8 *The Treatment of the Insane in Private Practice. F. Savary Pearce.
9 *The Results of Examinations of the Blood for the Widal Reaction Performed at the Diagnosis Laboratory of the Health Department of New York City During 1901. John S. Billings, Jr.
10 The Prevention of Smallpox. M. L. Hughes.

Boston Medical and Surgical Journal, October 23.

11 *The Teaching of Surgery. (To be continued.) Herbert L. Burrell.
12 Deciduoma Malignum; Report of a Case. J. C. Hubbard.

American Medicine (Philadelphia), October 25.

13 Report of Two Cases of Gastrectomy, with Remarks. Albert Vander Veer.
14 *Arthritis Deformans. E. H. Bradford.
15 *The Concentration of the Urine Constituents as an Aid to Diagnosis. Torald Sollmann.
16 *Operative Treatment of Hip-Joint Disease. James K. Young.
17 Report of a Case of Blastomycosis of the Skin. Isadore Dyer.
18 Autointoxication in Relation to Mental and Nervous Diseases. Jay G. Roberts.
19 The Relation of Politics to the Hospital. Walter Lathrop.
20 Methods to Be Pursued and Sources to Be Considered in the Adoption of a Municipal Water-Supply. William G. Bissell.

Medical News (N. Y.), October 25.

21 *Note on the Newly Recognized Sugar-Controlling Function of the Suprarenal Glands. C. A. Herter.
22 *Remarks on Intrathoracic Pressure, with the Illustration of the Author's Method of Lung Immobilization. Charles Denison.
23 *Strictures of the Male Urethra. Robert H. Greene.
24 Comparative Toxicity of Ammonium Compounds, a Study in Autointoxication. B. K. Rachford and W. H. Crane.
25 Acute and Chronic Tuberculous Phthisis, with Cases. J. Cardeen Cooper.

Philadelphia Medical Journal, October 25.

26 *A Further Report upon the Treatment of the Tic Douloureux by Division of the Sensory Root of the Gasserian Ganglion. Charles H. Frazier and William G. Spiller.
27 *The Prevalence of Herpes Zoster. Max Joseph.
28 A Case Exhibiting the Symptoms of Both Tabes and Multiple Sclerosis. Wharton Sinkler.
29 *The Value of Diphtheria Antitoxin. M. Howard Fussell.
30 A Case of Cretinism, Showing the Results of One Year's Treatment. Alexander H. Davisson.
31 Anesthetics. Herbert O. Collins.

Cincinnati Lancet-Clinic, October 25.

32 Lessons from the Earlier Medical History of Cincinnati. Henry W. Bettmann.
33 Surgery of Prostate, Pancreas and Diaphragm. (Continued.) B. Merrill Ricketts.
34 *Preliminary Report on a Method of Treatment for the Relief of Hay Fever. Sylvester J. Goodman.
35 A Typical Case of Locomotor Ataxia, Tabes Dorsalis, or Posterior Spinal Sclerosis. Mark D. Stevenson.

Northwestern Lancet (Minneapolis), October 15.

36 Rectal Prolapse. C. H. Mayo.
37 The Study of Internal Medicine. J. W. Bell.
38 *Septicemia and the Curette. H. Plympton.

Journal of the Michigan State Medical Society (Detroit), October.

39 The Michigan State Medical Society—Its First Eighty-three Years—Present Wants, and Suggestions for Their Supply. Leartus Connor.
40 The Value of the Examination of the Blood to the General Practitioner. W. K. West.
41 *Bacterial Toxins. Victor C. Vaughan.
42 Floating and Movable Kidneys. Richard R. Smith.
43 Calculus in the Kidney and Ureter. Theodore A. McGraw.
44 New Growths of the Kidney. Aldred S. Warthin.
45 Acute Kidney Infections. Theodore A. Felch.
46 Surgery of the Kidney in Tubercular Conditions. W. H. Haughey.

Chicago Medical Recorder, October 15.

47 *The Typhoid Fever Situation in Chicago. Arthur R. Reynolds.
48 *The Etiology of Typhoid Fever. W. K. Jaques.
49 *The Typhoid Bacillus in the Blood in Typhoid Fever, with a Preliminary Report of a Study of Fifty-six Cases. Ellis K. Kerr and F. G. Harris.
50 *The Occurrence of Typhoid Bacilli in the Urine During Typhoid Fever. Adolph Gehrmann.
51 The Widal Reaction in Infancy and Early Childhood. Frank S. Churchill.
52 *Typhoid Fever in Infancy and Childhood. I. A. Abt.
53 *The Dietetic Management of Typhoid Fever. F. X. Walls.
54 Migraine in Masquerade. Archibald Church.

55 The Abuse of Vivisection. G. G. Taylor.
56 A New Self-Illuminating Ophthalmoscope. G. F. Suker.

Interstate Medical Journal (St. Louis), October.

57 *On Epistaxis and Its Treatment. Adalbert Heindl.
58 *The X-Ray as a Therapeutic Agent—Classified Report of Forty-three Cases. John H. Duncan.
59 *Pleurisy as Associated with Tuberculosis. John Hunter.
60 A Case of Simulated Motor Aphasia. Sidney I. Schwab.
61 Cases of Chronic Aphthous Stomatitis. Henry W. Bettmann.

New Yorker Medicinische Monatschrift, September.

62 Ueber Bedeutung, Pathogenese und Therapie der Versio-flexionen des Uterus. (Significance, Pathogenesis and Therapy of Uterine Versio-flexions.) L. A. Ewald.
63 Das Recht des Aerztes und der Mutter über Leben und Tod des ungeborenen Kindes. (The Law of the Physician and the Mother as to the Life and Death of the Unborn Child.) R. Kossmann.

Annals of Gynecology and Pediatry (Boston), October.

64 *The Causes and Treatment of Sterility in Women. Edward J. Ill.
65 Lazarus Riverius, 1589-1655. (Concluded.) Ira J. Prouty.
66 A Plea for the Conservation of the Uterus in Pelvic Inflammation. O. Beverly Campbell.
67 The Importance of the Early Treatment of Catarrhal Conditions of the Upper Air Tract in Children. Carolus M. Cobb.

Canadian Practitioner and Review (Toronto), October.

68 *Presidential Address, Canadian Medical Association. Francis J. Shepherd.
69 *Chauvinism in Medicine. William Osler.
70 *The Contribution of Pathology to Surgery. John Stewart.

Medical Examiner and Practitioner (N. Y.), October.

71 Diagnosis and Prognosis of Appendicitis. Robert T. Morris.
72 *Appendicitis as Affecting Medical Selection. Charles L. Greene.
73 *Race and Mortality. Frederick L. Hoffman.
74 Diagnosis and Prognosis in Nervous Diseases. William B. Pritchard.
75 The Shape of the Chest in Some Thoracic Conditions, and Especially in Tuberculosis. W. A. Evans and M. G. McHugh.
76 Diagnosis and Prognosis of Diseases of the Stomach. Freeman F. Ward.
77 Overweights (Male). Frank S. Grant.
78 Questions About Which the Medical Department and the Field Sometimes Differ. R. L. Lounsberry.
79 Chronic Catarrhal Otitis. Thomas J. Harris.
80 Cough in Pulmonary Phthisis and Its Treatment. J. Leffingwell Hatch.

Woman's Medical Journal (Toledo, Ohio), October.

81 Cancer Treated by X-Ray. Ida M. Wilson.
82 Medical Inspection of Schools. Martha Anderson.
83 A Résumé of the Work of the Physician's League During Its First Decade. Electa B. Whipple.

Proceedings of the Philadelphia County Medical Society (Philadelphia), October.

84 The Value of Diphtheria Antitoxin. M. Howard Fussell.
85 *Leucocytosis in Lead Workers. L. Napoleon Boston.
86 *Hemorrhage in Typhoid Fever. Roland G. Curtin.
87 *The Significance of Abdominal Pain in Typhoid Fever. Herman B. Allyn.
88 *The Diet in Typhoid Fever. William E. Robertson.
89 *Surgical Remarks on Typhoid Perforation. Robert G. Le Conte.
90 Intussusception in a Boy of Fifteen Years. Mordecai Price.
91 A Case of Hydromnios. Mordecai Price.

Medical and Surgical Monitor (Indianapolis), October 15.

92 *The Value of Urinalysis to Perfect Diagnosis. J. W. Crismond.
93 The Press and the Physician. Wm. C. Ball.
94 *Filariasis—A Case in Indiana. M. A. Austin.
95 *The Treatment of Uterine Hemorrhage with Adrenalin. T. B. Campbell.
96 Dilatation of the Cervix as a Cure for Dysmenorrhea. John A. Gibbons.

Ophthalmic Record (Chicago), September.

97 *Subconjunctival Inflammations. H. Gradle.
98 A Report of Some Interesting Ophthalmic Cases. George F. Suker.
99 Cases of Lenticular Opacity—Cataract Cured or Relieved by Treatment. H. V. Würdemann.
100 On the Confusion in Methods of Numbering and Using Prisms. Lucien Howe.
101 Corneal Tattooing. J. L. Borsch.
102 Notes from Abroad. C. F. Clarke.
103 Several Cases of Unusual Eye Diseases. J. Herbert Claiborne.

Proceedings of the Pathological Society of Philadelphia, July.

104 Report of a Case of Splenic Pseudoleukemia. Thomas G. Ashton.
105 Indications That Our Methods of Fumigation Are Faulty. G. E. Pfahler.
106 A Case of Double Hydronephrosis. L. W. Steinbach and David Riesman.

Kansas City Medical Index-Lancet, October.

107 *Hyperchlorhydria. T. H. Stucky.
108 *Studies of the Etiology of Inebriety. T. D. Crothers.
109 Report of a Case of Extirpation of the Stomach. J. D. Griffith.
110 The Future Physician an Optimist. (Continued.) William F. Barclay.
111 Pott's Disease of the Spine—Report of a Case—Operations—Recovery. John Punton.
112 A Double Amputation and Results. N. A. Drake.

Merck's Archives (N. Y.), October.

113 Some Methods and Combinations Which Have Proved Particularly Valuable in My Personal Experience. William J. Robinson.
114 Chemical Means for the Prevention of Bed-Sores. J. Dabney Palmer.

Peoria Medical Journal, October.

115 Choice of Time to Operate. O. B. Will.
116 Obstruction of the Bowels—Report of Four Cases. C. U. Collins.
117 Clinical Report (Rectal Cancer). E. M. Sutton.

Memphis Medical Monthly, October.

118 Some Remote Effects of Heart Lesions, with Special Reference to the Uterus. B. G. Henning.
119 Pleurisy. J. T. Barbee.
120 Hereditary Double Uvula. Richmond McKinney.
121 Typhoid Fever; Drug Addiction; Jottings. W. S. Robinson.
122 Abnormalities of the Uterus and Vagina. Joseph E. Johnson.
123 A Claim for Priority in the Suggestion of Serum Therapy. E. H. Randle.
124 Injuries to Internal Organs. J. O. Rush.
125 Diagnosis of Disorders of the Central Nervous System. B. F. Turner.
126 Gunshot Wounds of Stomach and Bowels. J. S. Rawlins.
127 Pernicious Malarial Fever. A. E. Cox.
128 Experiments with a Modified Form of Quinin. A. B. Cook.
129 Operation for Varicocele with Unusual Termination. W. J. Robinson.

Medical Bulletin (Philadelphia), October.

130 Hereditary Syphilis. John V. Shoemaker.
131 The Treatment of Chronic Nephritis. George W. Pfromm.
132 Observations on Three Hundred and Sixty-two Cases Treated with Aspirin. F. Wohr.

New England Medical Monthly (Danbury, Conn,), October.

133 Autobiography of the Late J. Milner Fothergill, M.D., London, Eng. (Continued.)
134 A Contribution to the Therapeutics of Peptomangan, "Gude." Ludwig Pohl.
135 Classification of Gynecological Cases as to Whether Medical or Surgical. Harris F. Brownlee.
136 The Use of the Essence of Caroid in Alcoholic Bronchitis, and in Chronic Alcoholic Gastritis. George T. Palmer.
137 Joseph Eastman, M.D., LL.D. Samuel E. Earp.
138 Anusol in the Treatment of Hemorrhoids. John Moir.
139 Treatment of Lithemia. Frank M. Floyd.
140 Clinical Notes on the Use of Urotropin in Pyuria. Frederick Fenton.
141 Surgical Clinic at Harlem Hospital, New York. Thomas H. Manley.

St. Louis Medical Review, October 25.

142 Diagnostic Points of Difference between Spermatorrhea and Seminal Pollutions. F. R. Sturgis.

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1. **The Urine from Each Kidney.**—Valentine finds that Harris and Downes' methods are most applicable to the female bladder, but he thinks that Kelly and Pawlik's methods are easier, safer, and more effective for the purpose, though he admits that he lacks experience. The purpose of his present paper is to recommend Cathelin's divisor which is based on pushing into the bladder a soft rubber membrane which attaches itself to the walls and is grasped by the bladder, thus dividing the viscus into two halves as described in THE JOURNAL of July 19, 1902, p. 173. He reproduces the illustrations and gives details of technic of its management. He has employed it in a number of cases, and its applicability to the general practitioner is, he thinks, shown by the fact that he has found no difficulty in its use after seeing it demonstrated five times.

2. **Vaginal Hernia.**—Bandler describes the anatomical conditions producing vaginal hernia and describes the various conditions which fall under this head. Out of the broad general class of prolapsus vaginæ, he says we must remove the following forms of vaginal hernia: "1. The most frequent, involving the lower half of the anterior vaginal wall, the so-called prolapsus vaginæ anterioris, or, better and truly speaking in most cases, cystocele. 2. Prolapse of the upper third of the anterior vaginal wall through descent of the intestines (rare). It is only possible when the union between cervix and bladder has been disturbed. This condition constitutes an enterocele vaginæ anterioris. 3. Prolapse of the upper portion of the posterior vaginal wall through a descent of the intestines, or enterocele vaginæ posterioris. Here the uterus and the lower half of the vagina are not affected as regards their position. The upper part of the posterior vaginal wall, how-

ever, is influenced by the intestines in the sac of Douglas. 4. A so-called prolapse or dilatation of the lower half of the posterior vaginal wall containing a diverticle of the rectum —a rectocele." The various forms are usually combined. The lateral walls are rarely affected; the most frequently-noted form is cystocele with descensus uteri. Next is cystocele plus rectocele, the latter due to laceration of the perineum, and least frequent, supposedly, is cystocele alone, though he finds it more frequent than generally supposed. Prolapse of the uterus with invagination of the vagina usually occurs only after the climacteric as the result of senile atrophy of the tissues. Cystocele may recur even with shortening of the round ligament or ventral fixation, and he says that two factors may be stated with certainty: 1. That the cure of retroflexion is not necessary for the cure of cystocele. 2. That the treatment of the posterior wall is not necessary to the cure of the lesion in the anterior wall. He remarks on Theilhaber's surgical treatment by anterior colporrhaphy, extending the excision laterally into healthy tissue, and bringing the upper ends of the levator ani muscle close together, narrowing the vagina and removing the thin urethrovaginal septum, and so closing the space on the under surface of the bladder through which this organ formerly descended. These were the chief reasons of his success. He also, in conclusion, describes elaborately the Dührssen method of ventral fixation as a valuable procedure and of considerable importance.

3. **Yellow Fever.**—Souchon claims that the eradication of yellow fever in Havana is not entirely due to the destruction of mosquitoes, but also to the rigid quarantine instituted by the medical authorities. He holds that yellow fever in a locality exhausts itself in two to four years, provided fresh cases, especially virulent ones, are not brought in from the outside. While he believes in the transmission of yellow fever by mosquitoes as demonstrated by Reed and Carroll, he also thinks there is some other means of transmission, and therefore argues against the mosquito crusade being alone effective. He calls attention to the fact that the same method was much less effectively carried out in other Cuban ports where yellow fever also ceased to exist.

4. **Inebriety.**—Crothers, in his study of the early stages of inebriety, makes prominent the following points: "1. The study of inebriety reveals a well-marked disease, passing through various stages, traceable by many and complex signs and symptoms. 2. The incipient stage seen before spirits are used is marked by dietetic delusions and other symptoms of nerve and brain irritability, all of which seem to depend on heredity or some obscure injury to the nerve and brain centers. 3. A group of symptoms can be found in most cases that may be termed pathognomonic, and will be seen in the later stages fully developed. 4. These early symptoms appear after the first toxic use of alcohol, and in some cases go on to full development, or are held in abeyance by some unknown force. 5. Practically, the recognition and study of this stage opens up a field of prevention and cure that will attract great attention at an early day."

5. **Infectious Bronchopneumonia.**—Wynkoop reports six cases in children and adults which seem to have started by the first cases visiting a watering place, Atlantic City, the others becoming infected. He remarks that the disease is highly infectious in young children. In all the cases there was an absence of coryza at the onset, and only in adults was the severe pain in the back spoken of. The disease in most cases gained its foothold in the larynx, and no amount of carbolized steam inhalations or quinin affected it. Without question it is systemic, the broncho-pneumonia being its local manifestation. The treatment is the same as for ordinary broncho-pneumonia. The prognosis is good, if the case is properly cared for. There is no mental disturbance following as an influenza, and though the temperature may continue high for a time in the convalescence, the general health improves. He suggests that it is inadvisable to send healthy children or adults to any health resort where infection may be obtained.

6. **Diseases of the Gall-Bladder.**—Deaver reviews the various disorders of the gall-bladder, including inflammatory affections such as cholecystitis, catarrhal, suppurative, phlegmonous, gangrenous, the obliterating forms, adhesions and the relation of these conditions to appendicitis. Cholelithiasis is noticed at length. He thinks the personal history should receive particular attention. He insists on operation as soon as the diagnosis is made. Cholecystotomy is the operation of choice and should be performed as rapidly as possible. There is no need of searching for stones or breaking up adhesions. That can be done later when the danger of infecting the ducts has disappeared. Acute phlegmonous cholecystitis and gangrene also require prompt operation. He disagrees with the view that cholecystectomy is advisable after numerous attacks of cholecystitis with adhesion, etc., and where the gall-bladder is shrunken, contorted or atrophied. He is satisfied as a rule with breaking up of adhesions and leaving the gall-bladder *in situ*. Hydrops usually requires aspiration and cholecystectomy. As regards prophylaxis, he calls attention to the diet, clothing, exercise, fresh air and restriction of the amount of alcohol used. The water cures are beneficial by the regular living and warm baths there used. Surgical operation is the only rational cure for gallstone disease.

7. **Experimental Gastritis.**—Turck has experimented with mustard in dogs to produce experimental gastritis and gives his results. He finds the early appearance of exudate within one or two hours after the introduction of the mustard emulsion, forming later a homogeneous mass of cell débris. The surface epithelium is not affected as much as the deeper mucosa, and the early appearance of necrosed acid or parietal cells, which become granular and lose their nucleus, is noted. Karyokinetic figures appeared within six hours, and cysts of the glands in the twenty-four-hour specimen, with accumulation of leucocytes and degenerated epithelial cells. The exudate becomes infected after a little while, though at first it is not a good soil. He remarks that chemotactic and other effects of mustard due to its peculiar toxic properties open up an interesting point as to what antibodies may be found. He is now experimenting in this direction.

8. **Private Treatment of the Insane.**—Pearce considers that certain forms of insanity are better treated at home than in asylums, though the asylum is best for the majority of cases. His conclusions are: "For all of us the lesson of acute insanities should be modified and retaught, and the earliest possible treatment instituted; looking toward the cure of the acutely insane in private, long before there is any occasion to think of asylum treatment, valuable as that is in chronic insanity, and for the homicidal maniacs and melancholics. Acute insanities of hybrid types, i. e., those that savor of two or more types, are the most hopeful in prognosis, and are therefore the ones to be kept out of asylums to the last moment. Especially where hysteria enters as an element in the case, the patient should be kept out of an asylum. The physician's duty is to overcome the terror felt by lay folk for the insane, and to engender that hopefulness of treatment of such cases in private which is so common in general medical affections."

9. **Widal Reaction.**—The experience in the diagnosis laboratory of the New York Health Department in regard to this reaction during 1891, is reported on by Billings, who finds that cases that showed the positive reaction were all clinically typhoid fever. Of 164 cases where reaction was doubtful, 39 proved not to be typhoid and 33 were typhoid. In 92 cases no subsequent information could be obtained. A number of cases, 78, failed to show a reaction, but afterward proved to be typhoid fever. He remarks on the varied and diverse conditions that may so simulate typhoid as to lead to a Widal test, among them intestinal ulceration, tumor in the lumbar region, hepatic cirrhosis, acute hepatitis, and abscess of the suprarenal capsule. In only one instance was the association of typhoid and malaria noted. A number of specimens were examined also with the paratyphoid test and the results were uniformly negative. He thinks likely that the blood in cases of paratyphoid infection reacts only with the special organism.

11. **The Teaching of Surgery.**—This article by Burrell is the result of a series of inquiries sent out by him to various

institutions throughout the world. He discusses the advantages of lectures, recitations and their use in different institutions. He also enumerates the institutions where surgical anatomy, physiology and pathology are taught as well as surgical technic and diagnosis.

14. **Arthritis Deformans.**—Bradford discusses the theories of arthritis deformans and concludes that we really do not understand the nature of the disease. It is much more common in old age, and its prevalence is greater than is supposed. He notes a curious fact in the Long Island Almshouse that of a number of old men affected none had nodes in the hands, while in the woman's department, the hands were usually specially affected. Why this should be so is not yet explained. Improvement seemed to follow proper treatment; whatever improves the patient's general condition improves the local symptom. Motion of the joint with protection from sprain improves its condition; improvement will result if contracted joints are straightened and placed in a condition in which moderate motion is possible. Measures to improve the circulation, such as heat and cold and static electricity, are useful. The arrest of the disease by a natural process should be regarded as a stimulus to investigation. He concludes by saying that arthritis deformans may be regarded as an affection of the organs of locomotion characterized by fibrous degeneration of synovial membrane ligaments, bones, cartilage and periosteum, causing an impairment of elasticity, and alteration in shape, and stiffness. These are followed by osseous degeneration, bony ankylosis, and irregular bony deposit. We need more complete pathologic reports of the condition of all the organs in this condition, a thorough investigation of the changes of tissue in the milder stages and carefully recorded clinical facts in regard to the arrest of the affection and the apparent self-limitation, careful chemical investigation of the tissues and blood and excretions. All these are needed before it can be placed on a satisfactory basis.

15. **Concentration of Urine.**—Sollmann's article is too elaborate for abstracting. He gives special attention to cryoscopic changes.

16. **Hip-Joint Disease.**—The various methods of treatment of hip-joint disease are reviewed by Young. In some cases, when the ankylosis is of the false variety, multiple myotomies are frequently all that is required, especially when forcible straightening is employed as an adjuvant. Forcible straightening by itself is not sufficient, and may cause great injury if tenotomies have not been performed previously. Osteotomy gives very satisfactory results in true and osseous ankylosis, and its necessity can frequently be determined by skiagrams. The Gant or subtrochanteric osteotomy is better than the Barton or intertrochanteric operation. Motion is not to be expected as the limb is still ankylosed and merely put in a better position. Among the operative measures he mentions aspiration, which has not been found satisfactory, though it may be valuable in small joints. In performing simple incision the surgeon should always have permission to proceed to a more radical operation if necessary. The erasion of the joint after the method of Willard, is favored in all instances when the disease is not extensive, particularly during childhood. This is accomplished by the curettage of every part of the joint surfaces, the débris being carried away by the flow of sterile water through a canulated curette, after which the iodoform emulsion may be thrown into the cavity and drainage provided. All the sinuses should be freely opened as well as all the abscess cavities, and the diseased tissue removed. It is the preferable operation in children, even when the disease is quite extensive, as it does away with the short leg that follows incision of the joint. In extensive disease in adults, incision is advisable, but should only be performed in carefully selected cases. He does not believe in amputation for this condition excepting in rare instances.

21. **The Sugar-Controlling Function of the Suprarenal Glands.**—In this article Herter discusses the hypothesis of the suprarenal glands serving as a means by which the controlling influence through the pancreatic function of the sugar secretion is exercised. He has put this hypothesis to the experimental test and obtained results which he thinks fully confirm the controlling influence of the suprarenals. In this article he simply intends to indicate the character of the evidence on which the newly-recognized function of the suprarenals is based: 1. Massage of one or both suprarenal glands practiced on dogs is followed by glycosuria. The application of pressure to the gland probably squeezes into the circulation an excess of the blood-pressure-raising constituent of its internal secretion. This is probably responsible for the glycosuria observed, which is largely controlled by the action of this constituent of the cells of the pancreas. Removal of the suprarenal gland or ligatures of its vessels is followed by rapid decline in the sugar of the blood. This does not imply that the removal completely destroys the power of the organism to make sugar, as this is shown to be not the case by experiments. He thinks that the low content of the blood in sugar after exclusion of the suprarenals may contribute to the early death that follows the operation. Sugar is probably required by all the active cells of the organism, and when the supply falls below a certain level it is conceivable that the nerve cells cease to functionate. He also extirpated the pancreas totally four days after ligation of the suprarenal vessels on the one side and ablation of the suprarenal gland on the other, and he finds the results in harmony with the preconception that the removal of both pancreas and suprarenals would render extirpation of the pancreas inoperative in the production of glycosuria. The fact that codein diminishes the sugar secretion in some patients suggested an inquiry as to its method of action, and he finds that it seems to be capable of lowering the blood-sugar content of normal dogs. Whether it acts by uniting with a product of the suprarenal glands is an open question.

22. **Intrathoracic Pressure.**—Denison's article is largely an answer to Bridge's views that shallow breathing and the passive policy to some extent is better for consumptives, and that they do not so much need altitude as a curative measure. In conclusion he also describes his method of strapping the chest to produce immobility of its lung, which he thinks is possible by this method and is to some extent more advantageous than the Murphy injections.

23. **Urethral Strictures.**—The following are the conclusions of Greene's article: "1. Careful treatment of chronic urethritis will prevent the formation of stricture. 2. True stricture is of slow growth and can generally be best treated by a prolonged passage of sounds and the proper treatment of any complication co-existent with it. 3. Cutting operations are almost never required in strictures which have not been previously incised. Strictures once incised, unless kept open, are liable to require further incision. 4. An incision being necessary, it is better to do an external urethrotomy combined with an internal urethrotomy if required."

26. **Division of the Sensory Root of the Gasserian Ganglion.**—Frazier advocates this method of severing the sensory root of the gasserian ganglion in obstinate cases of tic douloureux in preference to extirpation of the ganglion. Its advantages are in the avoidance of hemorrhage from the more severe operation of extraction of the ganglion with the severance of its dural adhesions, etc., and the avoidance of injury to the adjacent structures such as the motor root of the ganglion, the sixth nerve and the cavernous sinus, and reduction in the mortality rate from the operation. Spiller adds remarks on the advantages of the operation, and advises that the sensory root should be divided close to the pons so as to leave no part of the root containing sheaths of Schwann in connection with the pons. This will avoid any regeneration of the sensory fibers that might again bring on trouble.

27. **Herpes Zoster.**—Joseph finds that herpes zoster forms about 1 per cent. of all cases of skin diseases, and it occurs about equally in men and women. Its age prevalence is usually at between 15 and 30 years, increasing up to that period and decreasing afterward. Before school age it is rare. Its local frequency in the body depends more on the abundance of nerve supply, but there is one exception in his observations and those of Greenough, namely, an exceptionally large number of cases in the trigeminal region. This possibly may be due to the

fact that the region supplied is more open to injury and disease. Both sides of the body are apparently affected alike or with equal frequency, bilateral herpes zoster being rare. Zimmerleni says that herpes zoster occurs among physicians and nurses in epidemic form, and that no other occupation seems to predispose to the condition. This point can only be verified by consulting industrial and hygienic statistics. Epidemics of herpes zoster occur in the spring and fall and the sporadic cases occur with almost equal regularity throughout the year.

29. **Diphtheria Antitoxin.**—Fussell reports cases which show the value of diphtheria antitoxin and offers the following rules, which he thinks if followed will reduce the mortality of diphtheria to nothing instead of the present 30 per cent. or thereabout, occurring in Philadelphia: "1. Always make a culture in throat cases; diphtheria can not be certainly diagnosed without it. 2. When called to see a case of sore throat which is doubtful in character, give antitoxin at once and make the diagnosis by culture afterward. 3. When a case of undoubted diphtheria is seen, administer 2000 units at once. If there is no improvement in six hours, administer 2000 units again. Every 12 hours thereafter administer 2000 units until improvement begins. 4. Always give a large dose; 2000 to 4000 units in my hands has proven sufficient, but in desperate cases much larger doses may be used, as proven by the Boston experience. I believe that, given a case of diphtheria in an early stage, it is only a matter of administration of enough antitoxin to effect its cure. If one waits, even in apparently mild cases, fatal pathological changes may occur in the organs which will make death or invalidism certain, even though antitoxin be administered later.

34. **Hay Fever.**—The method of treating hay fever reported by Goodman consists in first using an alkaline spray to the nose and throat and then the local application of cocain, following these with the spraying of adrenalin, in 1 to 5000. Finally he packs the nostrils with a cotton plug saturated with adrenalin, 1 to 1000, leaving the application in place for ten minutes. He reports cases of his success by this method. While he does not claim it as a positive cure, he thinks the results have been very satisfactory.

38.—This article has appeared elsewhere. See THE JOURNAL of October 25, ¶36, p. 1072.

41. **Bacterial Toxins.**—In this article Vaughan gives the results of a number of experiments made in his laboratory at Ann Arbor in regard to certain bacilli and their toxins. He describes his method of obtaining toxins, and reviews to some extent the experience of others in the same line of study. He finds that the colon toxin is a constituent part of the cell, and is formed by synthetical processes which build up cell tissues. It is highly resistant both to chemical agents and to heat, and is undoubtedly of complicated constitution, and contains two or more toxic groups, one of which may be split off by agents which have a hydrolytic action. The toxin thus split off from the cell by dilute acids may be deprived of its poisonous property by the long-continued application of heat, especially in the presence of free mineral acid. As regards the anthrax toxin he reviews the work of Conradi and reports that carried out under his direction by J. W. Vaughan, which lead to the following conclusions: 1. The anthrax germ produces an intracellular toxin, which contains two or more toxic groups, one of which is split off by means of dilute sulphuric acid at the temperature of 110. 2. The split toxin is deprived of its poisonous properties by continued heating in the presence of free mineral acid. 3. The toxin split off by dilute acid is probably basic in character and possibly belongs to a low order of proteid substances, since it does not respond to the biuret or Millon test, but does give the xanthoproteic action. It seems, however that this bacillus must undergo certain hydrolytic changes by means of which its toxin is set free. Whether this is a passive one due to normal disintegration of the dead cell or is caused by activity of certain cells in the animal body, is a subject for future investigation. Vaughan says it seems likely that the animal body cells in resisting the invasion of the bacterial cells split the latter up, and in so doing liberate the poison which destroys the life of the animal. The diphtheria toxin which has been most studied is noticed at some length. He gives the general points of Ehrlich's theory and remarks that Gelston at work in his laboratory has shown in addition to the soluble diphtheria toxin, also an intracellular toxin, and that the commercial diphtheria antitoxin, while it protects animals against the extracellular poison, fails to afford protection against the intracellular toxin. This seems to explain the fact that has been observed that certain animals which are practically immune to diphtheria toxin are not immune to diphtheria infection. Whether or not the antitoxin for the cellular toxin can be produced in animals artificially, remains to be determined. The relation between the cellular toxin and the soluble poison also opens up a question of interest and importance for future investigation.

47.—See abstract in THE JOURNAL of October 18, p. 1000.

48.—Ibid.

49.—Ibid.

50.—Ibid.

52.—Ibid.

53.—Ibid., p. 1001.

57. **Epistaxis.**—The various causes of nose-bleed, including neoplasm, malignant and benign and chronic rhinitis, excoriations, ulcer, etc., are noted and the methods of meeting the cases. The author advises Belloc's method of packing the posterior nares if this is required. If the anterior nares are to be tamponed it can be done usually with gauze in strips one and one-quarter inches wide and six to ten long, crowded back by forceps. No tampon should remain in place longer than three days. He suggests, of course, styptic solutions and adrenalin, though they may be of little service in dyscrasias, where we may use morphin, gelatin injections, saline transfusions, etc. After successfully controlling hemorrhage it will be necessary to examine for constitutional trouble; one should never let the patient alone until the certainty of bleeding is checked. It is advisable to caution the patient as to his mode of living, warning him about blowing the nose too hard, and especially cautioning as to snuffing up water into the nose.

58. **The X-Rays.**—Duncan has employed the *x*-ray in a large number of conditions with great success, though in osteosarcoma he has not found it so beneficial. He offers the following conclusions: "1. That while it is not a panacea, and will not relieve all cases of any one kind of lesions, its value as a therapeutic agent is unmistakable and most valuable when properly used. 2. That the sooner the disease is treated after it makes its appearance the more success we may expect. 3. That those scientifically using the treatment should refuse to take patients even when they have every reason to believe they would be benefited, unless the patient can agree to be with the operator at least three or four weeks, for while improvement often is manifested after a few treatments, sometimes it does not show itself for several weeks. 4. That it is often palliative in inoperable cases and rids the patient, if only temporarily, of great pain. 5. That after an operation for a malignant growth the healing of the wound by the *x*-ray is beneficial, in that diseased tissue which probably may have escaped the knife is destroyed by the ray during the healing process. 6. That the operator must especially understand his tubes and not indiscriminately use tubes of great and slight resistance. 7. That sufficient time has not elapsed for us to say that the lesions will or will not return; but suppose they should return in six or twelve months or a longer time, is it not easy for the patient to undergo the same treatment, and probably get the same relief? Thus far, however, I may say that relapses have been very rare with those who have used the treatment longer than I have. 8. That in superficial epithelioma, lupus of both forms, especially vulgaris, cancer of the breast, and sarcomas of some forms (not osteo), the ray is very beneficial, and in the great majority of cases curative. 9. That in the treatment of cancers of internal organs judgment must be suspended until further experience and perfection of the apparatus."

59. **Pleurisy.**—Hunter holds that at least 50 per cent. of the cases of pleurisy are tuberculous, judging from his study of the literature and his personal experience. He does not consider it, however, necessarily gloomy in prognosis as a pulmonary affection is not inevitably the result. He advises climatic treatment in tuberculous pleuritis, and thorough antitubercular régime. Cases in which it is a question of removal of an effusion are sometimes puzzling, but the effusion is frequently more or less rapidly absorbed. When the dyspnea is not urgent and the cardiac impulse in normal position, it is prudent to wait, although the quantity of fluid may be quite extensive. The restriction of fluids and the use of saline cathartics, diuretics, massage and "flying" blisters may be tried. He quotes the following indications for paracentesis from Fowler: "1. When there are signs of positive intrathoracic pressure; 2, when the following symptoms which usually accompany the above condition are present—a small, irregular pulse and urgent dyspnea, palpitation on slight exertion, lividity, or evidence of engorgement and edema of the opposite lung. These symptoms may, however, be absent in cases accompanied by positive intrathoracic pressure so long as the patient is lying perfectly still. 3. When the fluid has been ascertained to be purulent its removal is necessary in all acute cases. It may be necessary to remove the fluid more than once, but only a few repetitions can be borne by the patient without impairing his strength. In aspirating, strict antiseptic precautions must be observed. The needle or the canula—if a trocar be used—should be about one-tenth of an inch in diameter and about three inches long." The usually selected positions are between the sixth and seventh ribs in the mid-axillary line or between the ninth and tenth, just outside the line of the angle of the scapula. The fluid should be withdrawn slowly and careful watch be kept on the action of the heart and the respiratory movements.

64. **Sterility.**—The various causes of sterility in women are reviewed, including displacements, cervical constrictions, operative procedures, etc. Ovarian disease is also considered and Ill thinks that an abnormal thickness of the tunica albuginea is also a cause. He remarks in regard to Polk's recommendation of operation on the ovaries and adnexa for sterility that he thinks it has opened up a vast field of usefulness in surgery.

68.—This article has appeared elsewhere. See abstract in THE JOURNAL of October 4, p. 854.

69.—Ibid., see THE JOURNAL of October 11, p. 916.

70.—Ibid., title 74, p. 1005.

72. **Appendicitis.**—Greene claims that palpation is the first and most important procedure in making the diagnosis of appendicitis. As regards the actual acceptance of the case for life insurance, it would seem that the following rules might reasonably be laid down: Cases of non-suppurative appendicitis where the appendix has not been removed and primary union obtained, might be accepted after six months from the time of operation. Cases where no operation has been performed might be acceptable after an immunity from all symptoms for two to five years. Suppurative cases in which drainage has been established without removal of the appendix might be acceptable after two years of immunity from symptoms, and where the appendix has been completely removed, after one year. Cases of unoperated suppurative appendicitis with spontaneous rupture and bowel drainage may be acceptable after three years' immunity, and cases where there has been general peritonitis may be considered acceptable one year after the appendix has been successfully removed; after five years with complete immunity and restoration to health if recovery has been due to simple drainage operation. If treated medically it would be safer to require at least five years' immunity in all cases. These recommendations are based on the favorable report from the medical examiner and a substantial extra premium would be necessary if fistula or ventral hernia were present at the time of examination. Occupation ought to be a factor of importance if there is liability of strain.

73. **Race and Mortality.**—Hoffman reviews the United States census reports, giving tables of the comparative mortality of the white and colored population, showing a nearly double proportion in the latter, and of the native and foreign white, while the native stock seems to have a decided advantage at most ages above infancy. The comparative mortality of the principal nativities is also tabulated, which shows that outside the negro population the greatest death rate appears in the Irish and German, while the Polish show a comparatively small ratio. A comparative mortality from specific disease shows the same approximate ratio between white and colored in consumption, pneumonia and typhoid, excepting in the white females where the typhoid mortality is greater than among the colored. Cancer seems to have its greatest mortality among the Germans, Irish and Italians. The mortality from disease of the female generative organs is highest among colored women, followed by Italian, the Poles showing the lowest rate. Affections of pregnancy, or the results of childbirth, caused the highest relative mortality among the Italian women. He concludes that race and nativity materially modify the mortality and special disease liability, but further observations and investigations are required before it will be possible to establish general laws useful for life assurance purposes. He concludes with the suggestion that insurance examiners can do no more important service than by occasionally contributing observations of their personal experience with cases of different nativity or parentage.

85. **Leucocytosis in Lead Workers.**—Boston finds that the patients in the Philadelphia hospitals from various lead works show a leucocytosis ranging from 4000 to 25,500 cells per c.mm. The average number of leucocytes in this series was 12,600. He reports in detail the blood examinations with brief remarks as to the general clinical pictures.

86. **Hemorrhage in Typhoid.**—The exact etiology of hemorrhage is hard to explain. Curtin has never seen it in very young children, and he thinks that there are conditions other than anatomic ones that exert some influence on the escape of blood from the blood-vessels. As instances, he reports cases where mental emotion seemed to stop the hemorrhage. The pathology, of course, is erosion in the intestinal canal. In diagnosis the first requisite is to have on guard some one competent. He had a nurse once who took the subnormal temperature due to internal hemorrhage to be a favorable sign. When hemorrhage ceases the temperature usually rises again nearly to its former height, and in some cases even higher. He thinks that often, even with severe symptoms, the patient may recover; the prognosis is not a hopeless one. The associated conditions that seem to be most serious in the severe cases are given by him as follows: "1. Renal disease, which sometimes alters the blood, in some cases rendering it less coagulable and thus favoring hemorrhage from all points. 2. Marked organic heart disease, in which the blood, being impoverished and lessened in quantity, is propelled slowly, causing the tissues to be only imperfectly supplied with blood. Under these circumstances, a hemorrhage from the bowel becomes a most grave complication. 3. Hemophilia, in which the blood becomes so altered there is little likelihood of the hemorrhages being staunched and much liability to other hemorrhages. 4. A tympanitic distention of the abdomen with the continued discharge of black, clotted blood, which is a very serious condition, as the blood-vessels are kept patulous by the distention of the intestines; or the latter and the blood-vessels have both lost their contractile power, thus favoring relaxation, not only of the bowel, but also of the walls of the blood vessels. I always dislike to see this condition in hemorrhage from the bowels. 5. Obstinate diarrhea and vomiting, which are decidedly unfavorable to the staunching of the blood." He has found the usual remedies to be of more or less value, and he has great faith in turpentine externally and internally. He also recognizes the advantage to be derived from suprarenal extract internally, and in extreme cases he has seen the efficacy of placing ligatures around the limbs during hemorrhage. He concludes with a quotation from a paper read by him on the statistics of 60 cases before the American Medical Association in June, 1897.

87. **Abdominal Pain in Typhoid.**—The causes of abdominal pain, colic, distention, enterocolitis, ulceration, phlebitis, appendicitis, ileus, septic peritonitis, etc., are noticed by Allyn,

with their special symptoms. He thinks we need more information as to the premonitory symptoms and a keener appreciation of pain as a danger symptom. Leucocytosis needs special consideration. He insists that pain and tenderness are not necessarily accompaniments of typhoid fever; on the contrary, they may be signs denoting the approach of actual onset of cholecystitis or perforation. Pain is frequently a danger signal. It should lead to a more careful study of the cause, more frequent visits and a careful record of the observations. Where there is reason to suspect cholecystitis, perforation or peritonitis the surgeon should be called in.

88. **The Diet in Typhoid.**—Robertson discusses the various ideas in regard to diet and holds that the food is not responsible for recrudescence and relapse in this condition. We should not withhold it on this basis. No matter what treatment has been adopted, the mortality is not materially increased, as shown by statistics. He quotes from Fitz, Bushuyev, Sartsievich and Shattuck as to the advantages of a more generous diet. The objections to it are necessarily theoretical, but, judging from the published reports, the death rate from the well fed is a little less than those on a liquid diet, but the prevailing type of disease must be the chief factor. He says free feeding will undoubtedly serve to diminish the number of deaths from asthenia and infection due to lessened resistance.

89. **Typhoid Perforation.**—The dangers of typhoid perforation may be attributed mainly to two causes: 1. Delay in operating, chiefly on account of imperfect diagnosis. We should study our cases more and be able to diagnose the disease quickly. 2. To surgical errors of judgment and technic. Le Conte discusses this subject under four headings: 1. Shock. He disagrees with surgeons who hold that when shock is present operation should not be undertaken for some hours later or until reaction has occurred. Every hour that the perforation remains open the greater the danger from leakage and the larger the extent of peritonitis. Therefore, operation should be immediately undertaken. 2. Incision. In 85 or 90 per cent. of cases the perforation will be found in the last 20 or 30 inches of the ileum, or in the cecum or appendix. In 10 or 15 per cent. other portions of the small and large intestine, notably the sigmoid flexure, which after the cecum is the most likely place to look for perforation. Le Conte's rule, therefore, is to make an incision directly through that portion of the bowel most likely to be affected, namely, in the right semilunar line below the umbilicus, and at once expose the head of the colon. Starting at this point the last three or four feet of the ileum are examined, next the cecum and appendix, and then the ascending colon as far as it can be exposed. If no signs of peritonitis are discovered, he would consider that an error in diagnosis had been made and discontinue further operative interference. If, however, peritonitis is found to be present, but perforation is missed, he would continue the search by making a median incision, examining the sigmoid flexure, descending and transverse colon, and then the remaining small bowel in the order named. We should remember that the perforation may be completely hidden from sight by lymph, and, therefore, all areas that are indurated or covered with lymph should be most carefully examined. When the perforation is of such a size that the closure of the opening will not produce a too marked stenosis of the bowel, it should be sutured at once, either transversely or longitudinally to the lumen, whichever way produces the least narrowing of the tube, and no time wasted in paring the edges of the ulcer. A running Lembert suture is not advisable as it might tear out; an interrupted Lembert mattress suture is best. After closing the opening other perforations should be looked for, as in 17 or 18 per cent. the openings are multiple. Dark necrotic spots should be treated as though perforation had taken place, and the weakened areas folded in with sutures. If simple closure is not practicable on account of the size of the opening, the condition of the bowel, or the number of perforations, several methods are open. 1. A plug of omentum may be fashioned to fit the opening, held in place with stitches, not as a patch is applied to a garment, but like a cork in a bottle. He has seen this done by Nature's processes alone. 2. Resection of the bowel. This is a long operation and a severe one, which is against its success. 3. The formation of an artificial anus. This would only be practicable in a single perforation, and might require a second dangerous operation to close the opening. If this is chosen, the bowel should be stitched to the muscle or fascia, and not to the skin of the abdominal wall, so as to favor as much as possible a later spontaneous closing of the opening. 4. Cutting off the damaged area of the intestine from the general peritoneal cavity by walls of gauze. This imitates Nature's method, requires but a short time, and can be done with ease and a large area of bowel can be isolated. In this way he has walled off the last two feet of ileum, cecum and part of the ascending colon with perfect success. Some portions of the bowel gave way the next day, with the formation of fecal fistula, but at the end of four weeks the openings spontaneously closed. He would prefer the plug of omentum in a very limited number of cases, where it is applicable, and for the others, walling off with gauze, leaving resection of the intestine or the formation of an artificial anus for the exceptional case. In rare cases where the perforation has produced a well-walled-off abscess, as seen in appendicitis, if the incision through the abdominal wall opens this cavity, he would be content to institute drainage, after gently sponging the cavity, and not attempt to find and suture the opening. If, however, the anterior abdominal wall does not form a part of the abscess wall, the tumor should be walled off with gauze, the adhesions broken open and the perforation sought for and dealt with radically. Short operations are generally well borne, but long ones are usually fatal. He gives the details of the peritoneal toilet and drainage, careful cleansing of the infected coils, etc. He thinks that flushing the whole abdominal cavity with limited signs of peritonitis, is dangerous as it may disseminate the infection. He, therefore, prefers cleansing limited areas in the abdomen with dry sponges, trusting to proper drainage to prevent further spreading of the infection. When the peritonitis, however, is extensive a copious douche must be resorted to. The cavity must be flushed with large quantities of hot water while the intestines are outside, while the hand gently stirs the water round to bring it in contact with all the peritoneal surface. The intestines are then douched and cleansed outside the abdomen and returned, and free drainage is instituted. In closing the abdomen only such sutures should be used as are necessary to keep the intestines in their proper place. The rest of the wound should be filled with gauze to secure the best possible drainage. It is his custom to raise the head of the bed to aid the fluids to gravitate to the pelvis. He thinks that delay is far more responsible for mischief than surgical errors in judgment.

92. **Uranalysis.**—Crismond insists on the importance of the urinalysis, paying special attention to the cleanliness of the utensils, examining 24-hour samples and the importance of the quantitative test by the centrifuge. This, in addition to a microscopic examination, makes a scientific diagnosis.

94. **Filariasis.**—Austin reports a case in a physician aged 53 who had been a resident in the country for 40 years, with no record of foreign travel. The diagnosis was ptomain poisoning, but careful examination of the blood revealed the sheaths of embryos of the *Filaria sanguinis hominis*. He thinks he had in the case not only the involvement of the kidneys, but also some parenchymatous vascular changes in the liver.

95. **Adrenalin.**—Campbell reports three cases of the use of adrenalin chlorid in 1 to 1000 solution, 15 drops three times a day internally, for profuse uterine hemorrhages following polypi or fibroids. Other remedies had failed, but this was satisfactory from the very beginning of treatment.

97. **Sub-Conjunctival Inflammations.**—Gradle describes what he thinks is a not altogether rare lesion—hitherto not definitely named—consisting in a patch of inflammation in the sub-conjunctival tissue over the eye-ball and not quite identical with episcleritis. It is irregular in size and shape, inward and outward from the cornea, oftener below than above the horizontal meridian, more commonly single than multiple, is slightly but distinctly swollen and marked by congested conjunctival vessels, beneath which there is a variable injection of the deeper vessels of a violet hue. Usually there is a pale zone

between it and the corneal margin; more rarely it extends to the limbus and ends abruptly with a steep change of level. The marginal inflammation may be mistaken for circumscribed symptomatic ciliary injection. It differs from typical episcleritis by being distinctly more superficial, not nodular, and leaving no slaty discoloration, and, as a rule, yields better to treatment. There are, however, transition forms between the two. Symptoms are limited to irritability and weakness of eye, varying with the intensity of the inflammation. It may be a manifestation of scrofulous ophthalmia, but is more often, in adults, due to acute conjunctivitis inefficiently treated. He has also seen it occur as a vesicle, probably a herpes febrilis; he has also observed it in a relapsing form in diabetes. It has been described also in its relapsing type by Graefe as "subconjunctivitis," by Hutchinson as "hot eye" and by Fuchs as "episcleritis periodica fugax," due to rheumatism, malaria, and often to unknown causes. The non-relapsing or non-recurring type here noticed seems to have been undescribed.

107. **Hyperchlorhydria.**—Stucky finds that hyperchlorhydria exists as the result of a primary lesion of either the liver, spleen, pancreas, and sometimes of the kidneys, and that while it does occasionally occur as a neurosis, it is a rarity. In the majority of cases it is a secondary affection due to organic or functional lesions in some part of the body and may at times be associated with some constitutional affection.

108. **Inebriety.**—This article is similar to ¶4, which see. The etiology must be studied by medical men from the physiologic point of view and only with long-continued and accurate observation can it be understood.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures and single case reports are omitted unless of exceptional general interest.

British Medical Journal (London), October 18.

1 Introductory Address at the Opening of the University College, Liverpool, "A Modern Religio Medici." Frederick Treves.
2 *On Exaltation of Bacterial Virulence by Passage Outside the Animal Body. E. W. Ainley Walker.
3 Recent Progress in the Housing of the Insane. George W. Mould.
4 A Discussion of the Treatment and Care of Persons in the Early Stages of Unsoundness of Mind. John Sibbald.
5 The Hospital Treatment of the Insane as Carried Out at the London County Asylum, Bexley. C. Hubert Bond.
6 *A Discussion on the Relation of Neurasthenia to Insanity. T. Clifford Allbutt.
7 *On Apprehensiveness, Stupor and Katatonia. Robert Jones.
8 *A Discussion on Syphilis as a Cause of Insanity. F. W. Mott.
9 *Action of Heroin and Dionin on the Respiration. C. R. Marshall.
10 The Digestibility of Fats and Oils, with Special Reference to Emulsions. John W. Wells.
11 *Synthetic Purgatives: The Purgative Action of Dihydroxy—Phthalo-phenone (Phenophthalein, Purgen). F. W. Tunnicliffe.
12 The Therapeutic Value of Arsenic and the Justification of Its Continued Use in the Light of Recent Observations Concerning Its Toxic Action. Ralph Stockman.
13 Arsenic in the Treatment of Chorea. Frank M. Pope.
14 On the Therapeutic Value of Cantharidine. Oscar Liebreich.
15 The Pharmacological Action of Mannitol Pentanitrate. C. R. Marshall and J. H. Wigner.
16 The Materia Medica of the Intratracheal Treatment of Pulmonary Diseases. Colin Campbell.
17 The Local and General Treatment of Diphtheria. Nestor Tirard.
18 *Pure Urea in the Treatment of Tuberculosis. Henry Harper.
19 The Action of Acids upon Voluntary Muscles and Blood Vessels. R. B. Wild and J. N. Platt.
20 Some Suggested Standards for Pharmacopeial Preparations. J. C. McWalter.
21 On the Pharmacological Action and Therapeutic Employment of Pseudaconitine and Japaconitine. J. Theodore Cash.
22 On the Use of Alkalies in Relieving Pain. Lauder Brunton.
23 Hypodermic Puratives. Walter E. Dixon.

The Lancet (London), October 18.

24 *Some Morbid Conditions of the Mouth. Edmund W. Roughton.
25 *The Treatment of Psoriasis with Myelocene. D. Chambers Watson and J. A. Douglas Thompson.
26 Nasal Obstruction and Deformities of the Upper Jaw, Teeth and Palate. Mayo Collier.
27 Cancer of the Esophagus without Obstruction. J. G. Emanuel.
28 The Treatment of Atonic Dilatation of the Stomach by Means of High-Frequency Currents. Alexander Crombie and T. J. Bokenham.
29 Notes on a New System of Treatment in Pulmonary Phthisis. Duncan Turner.
30 Malignant Tumor of the Kidney in Childhood. J. Eustace Webb.
31 Medical Profession in Relation to the Army. William Taylor.

Journal of Tropical Medicine (London), October 1.

32 Sleeping Sickness and Filaria Perstans in Busoga and Its Neighborhood, Uganda Protectorate. Aubrey Hodges.

Annales Pasteur (Paris), September.

33 Recherches sur quelques bacilles anaérobies et leur differenciation. P. Achalme.
34 Neutral Red. I. Himmel.—Le rouge neutre. Son rôle dans l'étude de la phagocytose en général et dans celle de la blennorrhagie en particulier.
35 Sur les cils (flagella) composés. E. Malvoz.
36 Sur la dissociation des propriétés agglutinante et sensibilisatrice des sérums spécifiques. A. Dubois.
37 Recherches sur le microbe de la "loque" (bee disease). U. Lambotte.

Bulletin de l'Acad. de Med. (Paris), October 7, lxvi, 31.

38 Study of 580 Cases of Diphtheria. Josias.—La diphthérie à l'hôpital Bretoneau.
39 Anti-Malaria League in Corsica. A. Laveran.—L'assainissement de la Corse.

Revue de Chirurgie (Paris), October.

40 *Ostéotomie et ostectomie fémorale dans les ankyloses vicieuses de la hanche (hip), et dans certaines fractures vicieusement consolidées du femur. E. Vincent.
41 Singulière anomalie de développement du foie (of liver). E. Salvia.
42 *Massage of Exposed Heart. M. Boureau.—La massage du coeur mis à nu.
43 *Des greffes (grafts) hydatiques post-opératoires. F. Dévé.
44 Note sur la cure opératoire des hernies plus spécialement envisagée dans le milieu militaire. L. Richard. (Commenced in No. 9.)
45 De la fracture de Dupuytren. Moyens de contention. Amyotrophies réflexes. Déviation secondaire. Consolidation vicieuse. Mally and Richon. (Commenced in No. 8.)

Semaine Medicale (Paris), October 8.

46 Tuberculome hypertrophique du cecum; Diagnostic differentiel des tumeurs de la fosse iliaque droite. Dieulafoy.
47 La percussion et l'auscultation osseuses combinées comme moyen de diagnostic et de localisation des fractures. J. Plesch (Rajecz, Hungary).

Berliner Klin. Wochenschrift, xxxix.

48 (No. 36.) Ueber Herpes laryngis (menstrualis), nebst Bemerkungen über den menstruellen Herpes. Bettmann.
49 Beitrag zur Hämatopoiese. A. Wolff.
50 *Long Incubation of Rabies. T. Kasparek.—Ueber einen Fall von Ausbruch der Tollwuth sieben Monate nach der Pasteur'schen Schützimpfung.
51 Correction of Large Deforming Noses. J. Joseph.—Ueber einige weitere operative Nasenverkleinerungen.
52 (No. 37.) Intraglobulare Methämoglobinämie. S. Talma.
53 Ueber das Zustandekommen der inspiratorischen Glottis-verengerung (constriction) bei doppelseitiger Posticus-Paralyse. Dorendorf.
54 Ueber die hämolytischen Eigenschaften (properties) von Organ-Extracten. S. Korschun and J. Morgenroth.
55 Essence and Treatment of Congenital Dislocation of Hip-Joint. Joachimsthal.—Beiträge zur Lehre von dem Wesen und der Behandlung der angeborenen Verrenkungen des Huftgelenks. (Commenced in No. 36.)
56 (No. 38.) *Transmission of Human Tuberculosis to Cattle. J. Fibiger.—Uebertragung der Tuberculose des Menschen auf das Rind.
57 Ueber multiple hereditäre Exostosen. Jungmann.
58 Laparotomia hypogastrica extraperitonealis zur Heilung des Gebärmutterscheidenkrebses (utero-vaginal cancer) und des Mastdarmkrebses (rectal cancer). A. Mackenrodt.
59 (No. 39.) Ueber einen operativ behandelten Fall von Rückenmarkstumor (spinal tumor). H. Oppenheim.
60 Action of Alcohol on Metabolism. A. Clopatt.—Ueber die Einwirkung des Alkohols auf den Stoffwechsel des Menschen.
61 Zur Obstipatio spastica. Von Sohlern.
62 Ueber die Wirkungsweise des Cobragiftes (cobra venom). P. Kyes. (Commenced in No. 38.)
63 (No. 40.) Akroparaesthesien nach Trauma. M. Sommer.
64 Tse-tse-Krankheit in Togo (West Africa). H. Ziemann.
65 Zur Einheit (unity) der Streptokokken. F. Meyer.
66 Study of Mercurial Dermatoses. E. Hoffmann.—Ueber Quecksilberdermatitis und die ihr zu gruade liegenden histologischen Veränderungen, nebst Bemerkungen ueber die dabei beobachteten lokale und Blut-Eosinophilie. (Commenced in No. 39.)

Centralblatt f. Chirurgie (Leipsic), October 11 and 18.

67 (No. 41.) Die intracapsuläre Prostate-Resection als Normal-Verfahren bei Prostata-Hypertrophie. L. Rydygier.
68 Thermophor-Spritze (Syringe) zur Paraffin-Injection. C. Ewald.

Centralblatt f. Gynaekologie (Leipsic), October 11 and 18.

69 (No. 41.) Ueber Durchgängigkeit (permeability) der Tuben. F. Ahlfeld.
70 *Die doppelseitige Unterbindung der Aa. Hypogastrica und ovarica zur palliativen Behandlung des Uterus-Carcinoms. Krönig.
71 Improved Dilator. O. Kaiser (Dresden).—Zur schnellen Erweiterung des Muttermundes nach Bossi.
72 Application of Clamps and Ball Forceps in Obstetric Cases. H. Queisner.—Zur Verwendung von Klemmen und Kugelzangen in der Geburtshilfe.
73 New Combined Suture Instrument. O. Kaiser (Dresden).—Ein neues Nähinstrument.
74 (No. 42.) Zur Geschichte der fetalen Theorie über die Ursachen der Eklampsie. J. M. C. Mouton.
75 Ueber anaerobe Bakterien und ihr Vorkommen bei fetiden Eiterungen (suppurations). A. Wallgren.
76 Fall von Chorionepithelioma malignum. O. Schmidt.

Dermatologisches Centralblatt (Berlin), October.

77 Ueber Urethritis petrificans und Steine der Harnröhre (urethra). J. J. Karvonen.
78 *Zu einer Prophylaxe des Tabes und Paralyse (und vielleicht syphilitischer Nachkrankheiten überhaupt). P. Cohn.

Deutsche Med. Wochenschrift (Leipsic), October 9.

79 Study of Albumin Precipitins. L. Michaelis.—Untersuchungen über Eiweisspräzipitine.
80 Ueber hämolytisches Blut-Plasma. G. Ascoli.
81 Zum Nachweis der Milchsäure (lactic acid) im Magensaft (in gastric juice). Bönniger.
82 Fall von hochgradiger cystischer Erweiterung (dilatation) des Ductus choledochus. M. J. Rostovtzeff.
83 *Gangrene of the Skin After Subcutaneous Infusion. E. Wormser.—Ueber Hautgangrën nach subkutaner Infusion.
84 Ein Beitrag zur Pentosurie. F. Kaliski.
85 Atrabilin in der Urologie. S. Goldschmidt.
86 *Prevention of Snoring. K. Küster.—Zur Verhinderung des Schnarchens.

Muenchener Med. Wochenschrift, October 7.

87 *Die Differentiell-Diagnose der Neurasthenie. Kraepelin.
88 Operative Behandlung gewisser Lungen-Erkrankungen. G. Treupel.
89 *Relations between Bladder Affections and Myomata. W. Hahn.—Ueber die Beziehungen zwischen Blasenerkrankungen und Myomen mit Rücksicht auf die Prognose derselben.
90 *Ueber die post-operative Harnverhaltung (retention of urine) und deren Folgen. F. Taussig.
91 Nervous Radiations in the Domain of the Urinary Organs. W. Hirt.—Ueber nervöse Irradiationen im Gebiete der Harnorgane.
92 Therapeutics in Russia in XVII Century. M. Lachtin.—Geschichte der Therapie im XVII Jahrhundert in Russland.

Therapeutische Monatshefte (Berlin), September.

93 Treatment of Diabetes Mellitus. H. Eichhorst.—Behandlung der Zuckerharnruhr.
94 Severe Case of Scarlet Fever Apparently Benefited by Injection of Normal Blood Serum. C. S. Engel.—Ueber einem mit normalem Blutserum behandelten Fall von schwerem Scharlach.
95 Der Bad (bath) als Infections-Quelle. Winternitz.
96 *Ueber ein neues Blut-Reagens und dessen Empfindlichkeit für den krystallographischen Blutnachweis. C. Strzyzowski.
97 Ueber Intrauterin-Pessarien. Hollweg.
98 Ueber Pyrogalloltriacetat-Behandlung nicht-parasitärer Hautaffectionen (dermatoses). W. N. Clemm.
99 Ueber die toxicologischen Eigenschaften (properties) des Lysoform. F. Nagelschmidt.

Therapie der Gegenwart (Berlin), September.

100 *Time Required for Absorption of Fat Through the Rectum. E. W. Baum.—Ueber den zeitlichen Ablauf der rectalen Fettresorption.
101 *Internal Gelatin Treatment of Hemophilia. Hesse.—Innerliche Gelatine-Behandlung bei Hemophilie.
102 *Minin's Blue Electric Light in Therapeutics. Danilloff.—Beitrag zur Frage der therapeutischen Anwendung des blauen electrischen Lichts.
103 *Treatment of Mental Diseases with Saline Infusion. H. di Gaspero.—Ueber die Kochsalzinfusionstherapie bei Geisteskrankheiten.
104 Foreign Bodies in Male Urethra and Psychology of Such Cases. C. Posner.—Fremdkörper in der Harnröhre des Mannes, nebst Bemerkungen über die Psychologie solcher Fälle.
105 *Gonorrhoe und Gravidität. L. Fürst.
106 Relations between Chemical Constitution and Pharmacologic Action. B. Laquer.—Beziehungen von chem. Constitution und pharm. Wirkung. Critical Review.
107 Ueber die physiologische Dosirung von Digitalispraparaten. A. Wolff.
108 Aspirin in der Therapie der Lungentuberkulose. H. Cybulski.
109 Quinin in Internal Hemorrhages. A. Hecht.—Zur Behandlung innerer Blutungen.
110 Suggestion for Reform of Contract Practice. M. Sussmann.—Ein radicaler Vorschlag zur Reform des Krankenkassenwesens.

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2. **Increase of Bacterial Virulence in Vitro.**—In this seventy-second report of the Scientific Grants Committee, Walker reports experiments on the increase of virulence of bacteria by repeated artificial cultures in the test tube. The typhoid bacillus was used and the tests of virulence were made on guinea-pigs. Necropsies were performed on all the animals that died and the organism found examined microscopically and culturally to ascertain its identity and presented the characteristics of the *Bacillus typhosus*. Comparisons were also made of the relative number of bacilli in the emulsions. The conclusions reached were that the virulence of the bacteria may be increased by passage through the bacteriolytic fluid *in vitro*. The practical bearing of these observations and their relation to certain of the problems of infection and immunity are apparent. The increase of bacterial virulence which may be brought about by passage through the body of the living animal is probably attributable to the effect of the successful resistance of surviving micro-organisms to the bactericidal action of the living tissues.

6. **Neurasthenia and Insanity.**—Allbutt gives a theory of neurasthenia that it is an individual weakness by which exhaustion takes place over repair and a lowering of the nervous potential with imperfect recovery. He contrasts it with hysteria, which is a special abnormal interference with special inhibitions. Hypochondriasis is not a step between neurasthenia and insanity, nor is it insanity, though close to it. It consists in a fixed idea which seems to closely approach delusion, but does not cross the narrow line as often as might be expected. Neurasthenia with obsessions he is inclined to think is nearer insanity, especially when they are such as an internal call to do some wrong or to satisfy some morbid desire are they more characteristic of insanity than neurasthenia. The relation of neurasthenia to insanity requires close attention to diagnosis and he distinguishes the early stages of melancholia or delusional insanity or general paralysis which may simulate it very closely. Unlike some other authors, he remarks that the memory in neurasthenia loses its tenacity, the attention is enfeebled, but sharply defined breaches of memory are more characteristic of hysteria or epilepsy, and he has never seen them in neurasthenia. Depression of spirits, if primary and persistent, is more characteristic of melancholia or hyperchondriasis. Of late years he has observed a sort of post-operative neurasthenia following certain operations, not always severe ones, more common in women than in men. It is very like the neurasthenia of railway cases, and whether due to the anesthetic or the mental strain, etc., is hard to say. He mentions it to ask if this post-operative neurasthenia is some lingering phase of an earlier acuter disturbance known as post-operative insanity.

7. **Katatonia.**—Jones considers katatonia not as a separate type, but as a special syndrome in other forms of insanity, more especially the cyclic forms. In his experience it almost invariably is preceded by a period of apprehensiveness, which is itself preceded by irritability, headache or pain, and a sort of panophobia. This is followed by a condition of muscular tonus and stupor. This apprehensiveness with high muscular tension means low blood pressure, and probably also means a diffusion of nerve power, and an absence of volitional control. He has studied cases as regards the blood pressure and finds it varying from 80 to 110 mm. of mercury. It indicates a corresponding impairment of the general metabolism. In some cases marked excitement alternates with the stupor, the change sometimes being sudden. The tendency is generally toward dementia. He speaks particularly of the moral causes, together with over-pressure in education, etc., in its etiology. Its pathology is probably a special form of nutritional impairment in the neuron. The swollen nucleus with granular degeneration of the Nissl bodies, the disappearance of fiber plexuses, and the changes in the deeper layers of the cortex, caused by the destruction of the neurons and increase of the glia tissue, which are described as the pathologic appearances in cases of katatonia, may help us to account for the symptoms.

8. **Syphilis in Insanity.**—Syphilis may cause insanity, according to Mott: 1, by moral shock; 2, by the effect of the poison and anemia on the general nutrition; 3, the specific poison may cause inflammation affecting the enclosing, supporting and nutrifying tissues of the brain, producing meningitis, usually basal, gummatous tumors, endarteritis and periarteritis. Most of these cases occur in young males within four years after infection, and they frequently run a rapid course in spite of treatment. The severer forms closely resemble general paresis, but he points out certain differences: The coarser paralysis and the involvement of special cranial nerves, nocturnal headache, tenderness on percussion, etc. Perhaps pseudo general paralysis is an applicable term, but syphilitic brain disease is, he thinks, the best, for, of all the forms of insanity, this may be looked on as a special organic brain disease with mental symptoms. Moreover, it is one of the most amenable to treatment of all the severe forms of insanity. 4. Syphilis is a cause, and a very potent one, of arterial degeneration, arteriosclerosis. 5. He raises the question as to the relationship of syphilis with general paresis and adduces the usual arguments in favor of this connection. He remarks that he

has never seen a general paralytic with a primary sore or secondary eruption among the many hundreds he has examined, and considering the frequency with which these expose themselves, he thinks this can be best explained by the immunity afforded by the previous infection. In order to excite discussion he affirms the proposition, "no syphilis, no general paralysis."

9. **Heroin and Dionin.**—The action of heroin and dionin on the respiration is studied experimentally by Marshall, who employed anesthetized rabbits with the tambour method to show the changes. He finds that heroin can prolong inspiration and increase its depth, but the results of its beneficial action are very soon past and slowing is ultimately produced. Dionin appears to be slightly more sedative than codein, but otherwise has the same action. Heroin has a much greater effect on the respiratory center, but he doubts whether this will prove of much use therapeutically. The results of its beneficial action are too narrow.

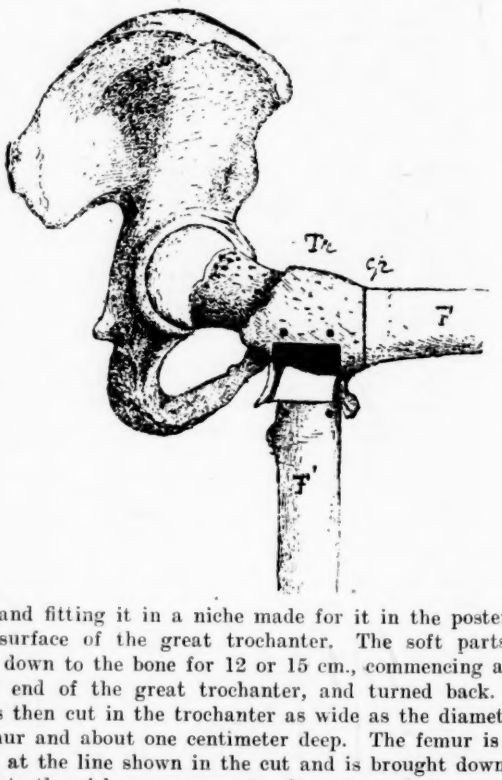
11. **Phenolphthalein, Purgen.**—The purgative action of this substance was apparently found accidentally. Phenolphthalein being considered a harmless drug, was used by the Austrian Government to earmark a certain class of wines, and the resulting diarrhea produced in the drinkers called attention to this action of the drug. The purgative action is much more marked in man than in animals, which is credited by Vamossy to the fact that in the latter the conversion into sodium salt either does not occur or only to a very slight extent. The conclusions reached by the author are: "1. For children, phenolphthalein in doses of from ¾ to 2¼ gr. (one to three tablets of infant purgen) is a useful aperient. 2. For ordinary adults, this drug must be given in doses of from 1½ to 4½ gr. (one to three tablets of adult purgen). 3. In cases of obstinate constipation, the dose must be increased to 15 gr. (one to two tablets of strong purgen). 4. Phenolphthalein produces purgation in jaundice. It has no irritating action on the kidneys; its depressant action on the circulation is less than that of magnesium sulphate."

18. **Urea in Tuberculosis.**—Harper gives a lengthy tabulation of cases in which his treatment of tuberculosis with urea was employed, and he says it fulfills many of the requirements. It is not corrosive, can be given in sufficiently large doses, and is not a substance foreign to the economy. He begins with 20-gr. doses, and gradually increases up to 80, 90 or 100, three times a day between meals. If any gastric symptoms appear he discontinues it for a few days and begins again. Only pure urea should be used, as the commercial form used in dyeing causes vomiting and diarrhea. He calls attention particularly to the fact that 3 per cent. of pure urea added to a virulent culture of tubercle bacilli in an incubator kills the organisms. In mixed infection he gives along with the pure urea, calcium sulphid in 1½ and 2 gr. pills, four or five pills daily for any of the streptococcic infections. In proportion as he has increased the nitrogen in tuberculosis, the death rate has lessened. During the last twelve months he has only signed one-fourth as many death certificates as compared with two years before.

24. **Mouth Bacteria.**—In this second lecture Roughton discussed the toxic bacteria in the mouth, calling attention to the fact that saliva has long been known to be at times poisonous, and mentioning the infection which has been known to follow dental operations, pyorrhea alveolaris, etc., various forms of stomatitis and the relation of oral bacteria to the disturbances of digestion, pulmonary infection, infection of the cervical glands, etc. He quotes Dr. G. W. Cook, Chicago, as to the existence of tubercle bacilli in carious teeth. Other infections are mentioned, as are also the dangers of infection of the mouth as a source of infection to others.

25. **Psoriasis.**—Watson and Thompson recall that on March 22 one of them reported to the *British Medical Journal* the description of a preparation of bone marrow to which the name myelocene was given and the results which had been obtained with it in chronic ear disease. They publish the present article to record the results obtained by the treatment of psoriasis with this substance and report a number of cases. They say from the facts they feel justified in concluding that myelocene contains a substance of distinct therapeutic importance for the treatment of psoriasis. Even this small number of cases here reported appear to warrant the conclusion. Certain constitutional symptoms, however, must be recognized, as toxic symptoms will undoubtedly follow the unskilful use of the substance. The questions which arise will be how far the dietetic and other conditions are unfavorably suited to the production of the vital substance, which is a therapeutic agent in myelocene, and 2, what alterations must be made in these conditions with a view to the production of this necessary constituent. In conclusion they lay special stress on the following points in the observation and study of psoriasis: "1. A careful examination, frequently repeated, of the stools, more especially as to the odor and consistence, with the view of determining to what extent the intestinal canal may be acting as a focus of absorption of toxic substances. 2. A similar investigation of the urine, especially noting the total amount passed daily, so as to supply evidence as to the renal activity and general cardio-vascular tone. Further important evidence on this latter point is obtained from (3) a study of the capillary reaction of the general skin surface. More information may sometimes be gained from a critical examination of the skin that is apparently healthy than of the skin that is obviously diseased."

40. **Treatment of Vicious Ankylosis of Hip Joint.**—Resection of the joint, or osteotomy of the neck of the femur exposes to the danger of arousing the tuberculous or pyogenic process if it is not entirely extinguished. Vincent's method of treating vicious ankylosis of the hip joint consists in sawing the femur



across and fitting it in a niche made for it in the postero-inferior surface of the great trochanter. The soft parts are incised down to the bone for 12 or 15 cm., commencing at the farther end of the great trochanter, and turned back. The niche is then cut in the trochanter as wide as the diameter of the femur and about one centimeter deep. The femur is then divided at the line shown in the cut and is brought down and fitted into the niche as a carpenter fits a tenon into a mortise. The femur is then vertical instead of more or less horizontal, and the flaps of periosteum are fitted over the raw parts. Cp. in the cut means collar of periosteum reaching to the dotted line, left after the femur has been removed. The wound is drained through a counter-opening at the lowest point as the patient reclines. A cast is applied to immobilize the limb in extension and slight abduction. The fitting of the femur in the niche prevents all slipping and dispenses with a suture and the consequent danger of osteitis around foreign material. Implantation of the femur at this point diminishes the shortening of the limb by the entire width of the trochanter. No disturbances in the circulation need be apprehended, and as the field of operation is remote from the focus of preceding inflam-

mation in the joint, there is no danger of arousing it. The results are functionally perfect in the two cases that have been followed for twelve and two years. The limb has been straightened, the shortening reduced to the minimum and the solidity is perfect. Another case illustrates the benefit to be derived from application of Lorenz's screw in the course of osteotomy undertaken on account of a diaphysial fracture of the femur with pronounced chevauchement. The screw confers great power on the surgeon, with a convenience and precision far superior to manual traction. The patient was a lad of 14 who had been run over, sustaining a fracture of both femurs. After two and a half months of weight traction the ends of the bones still rode each other by 9 and 5 cm. The chevauchement was rapidly overcome with Lorenz's screw, and half the width of the end of each stump was cut out, forming two steps which fitted into each other as the bones were coaptated by the screw. He calls this the Z resection, or the "steps" (escalier). The stumps fit into each other and there is no further necessity for extension as the stumps hold each other in place. Vincent concludes by calling attention to the fact that many cases of supposed traumatic arthritis and periarthritis are in reality unrecognized fractures of the joint. They require what he calls a "cotton-silicate bandage" (ouato-silicaté) which soothes the pain, tends to diminish the effusion and prevents inflammation. If arthrotomy and suture are inevitable, he advises restricting the suture to the para-ostal parts rather than to introduce a foreign body into the bone itself. His article is profusely illustrated.

42. **Massage of the Exposed Heart.**—Schiff proposed in 1874 to open up the heart and restore its spontaneous action by rhythmical compression of the ventricles, but it was not until 1892 that surgeons conceived the idea of applying this so-called massage of the heart to the resuscitation of persons dying under chloroform. Boureau has been able to collect a dozen cases in which this has been attempted. The surgeons always reached the heart by resecting ribs and opening the pericardium through the pleura, until Poirier recently entered through the diaphragm. The patient having succumbed in the course of a laparotomy, he tore the diaphragm and massaged the heart through this opening from below. Mauclaire also reached the heart through an incision in the diaphragm in a case recently reported. This route avoids the dangers of pneumothorax. In Tuffier's patient after rhythmic compression of the heart for two or three minutes, reached through the pleura, the organ began to contract, the patient sighed, the pulse reappeared, the pupils contracted and the wound was tamponed. After sighing a few times the pulse vanished again, but was again restored by renewed rhythmic compression of the heart, and the circulation was re-established for a few minutes, after which it subsided and could not be started again. It is possible that such maneuvers might succeed if they were done earlier. They have never yet been successful in the actual resuscitation of any person, although Prus and Batelli have succeeded on large numbers of dogs, especially after applying an alternating 240-volt current or a powerful electric discharge.

43. **Post-Operative Hydatid Grafts.**—Dévé states that both clinical and experimental data show that the scolex and the capsule as well as the daughter cysts may generate new hydatid cysts. In his experimental research the vitality of these hydatid germs could be completely destroyed by contact for 2.5 minutes with a 1 per 1000 solution of sublimate or a .5 per cent. solution of formol. He, therefore, suggests as a preliminary measure in ablating an echinococcus cyst to inject a parasiticidal .5 per cent. solution of formol and leave it in contact with the contents of the mother cyst for two or three minutes before attempting to remove the cyst.

50. **Long Incubation of Rabies.**—Kasparek has collected 22 cases of long incubation in the literature. They include 17 from 8 months to nearly 3 years; 2 at 5 years, and one each at 10, 18 and 20 years. In the case personally observed the child was bitten on the hand and arm and was taken at once to Vienna for Pasteur treatment with the other children bitten by the same dog, which was known to be rabid. Hydrophobia developed seven months afterward; all the other children have remained healthy to date.

56. **Transmission of Human Tuberculosis to Cattle.**—Fibiger of Copenhagen describes 5 cases of primary tuberculosis of the intestines, including 2 in children. Inoculation of calves with bacilli from them showed that the microbes were harmless, slightly virulent, virulent or extremely virulent in different cases. This ascending scale corresponded in inverse ratio to the duration of the affection and the age of the subjects. It is possible that the bacilli become less virulent for cattle the older the process in the human subject. This coincidence of primary tuberculosis in the intestines and the virulence of the infection for calves seem to suggest that they were cases of actual bovine tuberculosis in man.

70. **Ligature of Arteries as Palliative Treatment of Carcinoma.**—Krönig has operated on three patients with carcinoma of the uterus in an advanced stage by ligating the ovarian and hypogastric arteries on both sides. All hemorrhages ceased at once afterward, although they had been of daily occurrence before. In one case a hemorrhage recurred three months later, probably from the establishment of collateral circulation. The flow of pus was only temporarily suspended. It might be possible to combine excochleation of the carcinomatous masses with the ligatures. He ligated the hypogastric close to the common iliac artery, and the ovarian as it entered the broad ligament. In future he intends to ligate also the artery in the round ligament to prevent collateral circulation. Only a very small incision in the abdomen is required. He recommends in all cases of abdominal operation for the removal of uterine cancer, when the neoplasm is found inoperable, to ligate the arteries as described, before closing the wound. It can be done in five minutes.

78. **Prophylaxis of the After-Affections of Syphilis.**—Cohn regards tabes and progressive paralysis as the necessary result of the accumulation in the blood of the living bacterial and dead toxins from the latent neoformation of the syphilitic poisons. Mercurial treatment is of no avail at this stage and does only harm. The toxins have an elective action on certain portions of the nervous system after accumulating to a certain amount in the blood. This progressive, specific dysemia is apparent in the complexion of syphilitic subjects in the incipient stages of tabes. He suggests that it might be possible to ward off these after-affections by periodical, repeated venesection at long intervals. Withdrawal of a certain amount of blood would free the body from the toxins contained in it, and the new blood that would be produced to take its place would take up the struggle against the bacteria with fresh energy and an increased elimination of toxins would follow. As this measure of systematically repeated venesection would be harmless, he thinks that when the organism is once saturated with the syphilitic poison, it is our duty to employ it. He believes that it might be possible to induce local immunity against the primary infection by prophylactic local mercurial inunctions, systematically repeated at intervals, supplemented by mechanical and mercurial measures after possible infection. He also advocates multiple small injections of mercury in a circle around the primary lesion when it first develops. It is possible that the mercury may follow the germs into the glands and annihilate them there, in addition to its effect on the lesion itself. And when the disease is once thoroughly established the accumulation of the poisons in the blood must be combated by systematic blood-letting at certain intervals.

83. **Gangrene After Subcutaneous Infusion.**—Wormser replies to the communication from Baisch in Nos. 35 and 36 of the *Deutsche Med. Woch.*, reviewed in THE JOURNAL at the time, to the effect that the gangrene of the skin observed after subcutaneous infusion of Tavel's solution is not due to this fluid, as he has observed it after infusion of normal salt solution, and Welch, Bloodgood, and Zimmermann have reported similar cases in which only the normal salt solution was used. Brocq has observed cases of gangrene of the skin after injections of gray oil. [Tavel thinks that an artificial serum should be alkaline as well as saline, and many physicians and surgeons

are adopting his views. He never recommended his solution for subcutaneous use, as he explicitly states. His formula and its advantages were given in THE JOURNAL of June 7, p. 1545. —ED.]

86. **Prevention of Snoring.**—A small cap fits over the chin and is held in place by a band around the head, fastened to the chin cap with elastic rubber bands. This allows perfect freedom to the lower jaw while at the same time it prevents its dropping down after the subject is asleep, and thus prevents snoring.

87. **Diagnosis of Neurasthenia.**—Kraepelin emphasizes the harm done by the indiscriminate diagnosis of neurasthenia in various nervous affections. The principal ones confounded with it are progressive paralysis, dementia precox, maniaco-depressive or circular insanity, and the neuroses due to fright, worry, fatigue, the phobias, etc. He describes various points useful in differentiating, and points out that treatment suitable for neurasthenia is directly injurious in some of these other nervous affections. In case of a phobia, for instance, rest and abundant feeding aggravate the trouble. The mild forms of maniaco-depressive or circular insanity are peculiarly liable to simulate neurasthenia, but the alternations with periods of high spirits, the rapid development of the symptoms, the emotional depression, the lack of will power and especially the weariness of life are striking in these cases. Differentiation is important, as suicide is more liable than in genuine neurasthenia, and must be guarded against.

89. **Relations Between Bladder Affections and Myomata.**—Hahn considers the voluntary retention of urine for hours at a time, common among women, as one of the most prolific causes of bladder troubles later. Another important cause is the displacement of the uterus, and tumors in it, especially myomata. Anteflexion of a non-movable uterus, especially during the menstrual period, when it is heavier and the nerves of the region are irritated by the hyperemia, may entail severe bladder disturbances. These are exaggerated if there happens to be a myoma in the uterus. An apparently harmless myoma may, therefore, be the source of a chronic bladder affection or by compression on the ureters may cause urinary disturbances, and if the vessels are compressed there may be varicose veins. Varices can frequently be traced to a myoma, not necessarily very large. Removal of the myoma has in his experience cured a number of such cases and delivered the patients at one stroke from their bladder affections, except in those of exceptionally long standing.

90. **Post-Operative Retention of Urine.**—Taussig refers to the recent discovery that the essential process in the evacuation of the bladder is depression of the sphincter-tonus. He also calls attention to the frequent occurrence of retention of urine for twenty-four to forty-eight hours after operations, and in particular after those on the female pelvic organs. He tabulates the operations of this kind that have been done at the Bettina at Vienna, 282 in all, during 1899-1901. Post-operative retention was noted in 60 for more than three days, and in 43 for more than six. Retention was most frequent by far in operations entailing extensive detaching of the bladder from its surroundings, and removal of a large portion of the parametrium. This does not induce disturbances in the circulation, as is evidenced by the fact that the urine remains clear and without cellular débris until after the almost inevitable cystitis has made its appearance. He is convinced that the trouble is due to disturbance in the innervation of the bladder caused by the extensive mutilations around it. Treatment, therefore, should be addressed to the innervation of the bladder. The cystitis developed usually about the sixth day and occurred, notwithstanding minute precautions. In some cases the bladder infection was evidently derived from the intestines, as no catheter had been used. In treating the retention, intravesical faradization was found effective in some cases. In two cases expectant treatment for thirty hours was followed by spontaneous urination. Possibly the distension of the bladder walls in these cases stimulated the ganglia located in them. In 5 cases the urethra was dilated in the hope to diminish the tonus of the sphincter by this procedure. It proved successful in 2 but failed in the 3 others. Spontaneous urination almost always followed the getting up of the patients. But this was not possible until such a late date that the cystitis was already established by that time. In treating the cystitis it was found that urotropin had certainly an inhibiting effect on the bacteria, but it ceased on suspension of the drug. In the severer cases the urotropin proved of little benefit and silver salts were the main reliance.

96. **New Blood Reagent.**—Strzyzowski calls attention to the peculiarly fine crystals obtained with the following combination: 1 c.c. each of glacial acetic acid, water and alcohol, to which three drops of hydrogen iodid (Iodwasserstoffsäure) are added. The mixture must always be freshly made.

100. **Time Required for Absorption of Fat Through the Rectum.**—Baum describes the results of researches at von Mering's clinic at Halle in regard to the absorption of rectal alimentary injections. Iodipin is a combination of oil of sesamum and iodin. As it is taken up into the blood by absorption it is decomposed by oxidation and the iodin is liberated. Traces of iodin appear in the secretions, the saliva and urine, within a few minutes after ingestion of iodipin by the mouth. When it is administered by the rectum, the iodin does not appear in the secretions until fifteen hours afterward. Absorption by the rectum does not seem to be influenced by rest or exercise or by eating. Two factors alone seem to have a slight influence on it: the addition of 1.6 per cent. sodium chlorid to the emulsion, and reduction of the proportion of fluid. The rate of absorption varies somewhat in individuals, but is not affected by inflammatory processes in the lower intestines. It is possible that the fat is not absorbed below the ileum, and that there is no absorption in the large intestine. Rectal feeding with fats is of little use in cases of debility in which rapid assimilation is necessary.

101. **Internal Gelatin Treatment of Hemophilia.**—Hesse's case of a boy of 8 whose mother and grandmother had been anemic, but not bleeders, but the father of the latter had been a typical case of hemophilia and died at 38 from hemorrhage from the mouth, the lungs sound. The tendency had evidently been transmitted latent through two female generations as has been observed in other cases. The child was a very severe case of congenital hemophilia. After failure of all other measures, he was given 200 gm. of a 10 per cent. solution of gelatin every day for six months. The gelatin was flavored with fruit juices. The results have been surprisingly favorable, with disappearance of all symptoms.

102. **Blue Electric Light in Therapeutics.**—Daniloff reports from Minin's service in the military hospital at St. Petersburg, 12 cases of neuralgic or neuritic affections remarkably improved or cured by the application of blue electric light. The blue electric light expels the blood from the part exposed while the white light causes hyperemia. One case was a colonel who had suffered for nine years from rheumatic neuralgia in one shoulder, worse at night. The cure was complete after 9 applications of the blue electric light. It also aborted in twenty minutes attacks of asthma in 2 patients, the light in this case being merely blue light from an ordinary electric light with reflector. (Minin's apparatus was illustrated in THE JOURNAL, August 23, p. 432.)

103. **Saline Infusion in Mental Diseases.**—Saline infusion acts as a tonic, and at the same time stimulates and enhances the effect of other therapeutic measures. It has been found peculiarly beneficial in acute forms of mental diseases at Anton's clinic at Graz, in subcutaneous injection of from 350 to 400 c.c. of a physiologic salt solution or of Schücking's solution of .12 gm. sodium saccharate and 2.4 gm. sodium chlorid in 400 gm. distilled water. It is especially indicated in "exhaustion psychoses," and in those from intoxication or defective metabolism, in acute and collapse delirium, acute dementia, galloping progressive paralysis, amentia, Korsakoff's psychosis, catatonia, dementia paranoides, the mental disturbances of puberty and the climacterium, and in incipient stages of melan-

cholia, especially the complicated forms. The back is the most convenient point for the injection in such cases.

105. **Gonorrhea and Pregnancy.**—Fürst announces that a systematic course of treatment with ichthargan will cure sterility and avert the tendency to abortion in gonorrheal women, while thoroughly curing the basal disease. Ichthargan is reliable, free from untoward effects, does not irritate even the endometrium and exerts its bactericidal power in the depths of the mucosa. It causes no disturbance even when used during the course of a pregnancy. Ichthargan (argent. thiohydrocarbürosulfonicum) contains 30 per cent. silver. He applies it by rinsing the endometrium with a 5 per cent. solution and then inserts a 5 per cent. ichthargan bougie in the cervix and tampons the vagina with medicated gauze. Similar bougies are inserted in the urethra up to the opening into the bladder. This treatment is repeated every day for two or three weeks, by which time the cure was complete in his 9 cases of sterility or habitual abortion due to gonorrhea.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

A Text-Book of Pathology and Pathologic Anatomy. By Dr. Hans Schmaus, Extraordinary Professor and First Assistant in the Pathological Institute, Munich. Translated from the Sixth German Edition, by Dr. A. E. Thayer, M.D., Instructor in Pathology in the Cornell University Medical College, New York. Edited, with Additions, by James Ewing, M.D., Professor of Pathology in the Cornell University Medical College, New York. Illustrated with 351 Engravings, Including 35 Colored Inset Plates. Cloth. Pp. 602. Price, $4.00. Philadelphia and New York: Lea Brothers & Co. 1902.

Diet and Food, Considered in Relation to Strength and Power of Endurance, Training and Athletics. By Alexander Haig, M.A., M.D. Oxon., F.R.C.P., Physician to the Metropolitan Hospital, and the Royal Hospital for Children and Women. Fourth Edition. With 7 Illustrations. Cloth. Pp. 127. Price, $1.00 net. Philadelphia: P. Blakiston's Son & Co. 1902.

A Manual of Surgery for Students and Practitioners. By William Rose, M.B., B.S. Lond., F.R.C.S., Professor of Clinical Surgery in King's College, London, and Albert Carless, M.S. Lond., F.R.C.S., Surgeon to King's College Hospital. Fifth Edition. Cloth. Pp. 1213. Price, $5.00. net. New York: Wm. Wood & Co. 1902.

Death and Sudden Death. By P. Brouardel, Professor of Medical Jurisprudence, Dean of the Faculty of Medicine, Paris, and F. Lucas Benham, M.D., B.S. (Lond.), M.D. (Adelaide), Member of the Royal College of Physicians of London. Second Edition. Cloth. Pp. 336. Price, $3.00. New York: Wm. Wood & Co. 1902.

Manual of Gynecology. By Henry T. Byford, M.D., Professor of Gynecology and Clinical Gynecology in the College of Physicians and Surgeons of Chicago. Third Revised Edition. Containing 363 Illustrations, Many of Which Are Original. Cloth. Pp. 598. Price, $3.00 net. Philadelphia: P. Blakiston's Son & Co. 1902.

Transactions of the Medical and Chirurgical Faculty of the State of Maryland. One Hundred and Fourth Annual Session, Held at Baltimore, April, 1902; Also Semi-Annual Session, Held at Elkton, Md., November, 1901. Paper. Pp. 101. Baltimore: The Deutsch Company.

Electro-Chemical Analysis. By Edgar F. Smith, Professor of Chemistry, University of Pennsylvania. Third Edition, Revised and Enlarged. With 39 Illustrations. Cloth. Pp. 204. Price, $1.50 net. Philadelphia: P. Blakiston's Son & Co. 1902.

The Public Service.

Army Changes.

Changes in station and duties of officers of the Medical Department, U. S. A., ordered from the Adjutant-General's Office, Washington, D. C., from October 18 to 24, inclusive:

Brooks, John D., contract surgeon, U. S. A., now at Ft. Meade, S. D., will report in person to the commanding officer of that post for duty.

Carter, W. Fitzhugh, major and surgeon, U. S. A. The leave of absence granted Major W. Fitzhugh Carter in Special Orders No. 211, Sept. 8, 1902, from this office, is extended two days.

DeLappre, Samuel M., first lieutenant and asst.-surgeon, U. S. A., recently appointed, now in this city, will report in person at 9 o'clock a. m., on Nov. 6, 1902, at the Army Medical Museum Building, to Colonel Calvin DeWitt, assistant surgeon-general, U. S. A., president of the faculty of the Army Medical School, for the course of instruction prescribed by Paragraphs 542 and 543, Army Regulations.

Fletcher, Richard M., contract surgeon, U. S. A., is relieved from duty at Ft. Meade, S. D., and will proceed to Ft. Niobrara, Neb., and report in person to the commanding officer of the latter post for duty, and by letter to the commanding general, Department of the Missouri.

Fraser, Simon J., major and surgeon, U. S. Vols., now at the Presidio of San Francisco, will proceed to Ft. Bayard, N. M., and report in person to the commanding officer of the U. S. General Hospital at that post for treatment as a patient in that hospital.

Gorgas, William C., major and surgeon, U. S. A., is detailed to represent the Medical Department of the Army at the First Egyptian Medical Congress, to be convened at Cairo, Egypt, in December, 1902, and will proceed at the proper time to that place, via London, England. On the adjournment of the Congress, Major Gorgas will return via London, to this city.

By direction of the Secretary of War the following changes in the stations and duties of officers of the Medical Department are ordered:

Girard, Joseph B., colonel and assistant surgeon-general, U. S. A., on his arrival at San Francisco, will proceed to Omaha, Neb., and report in person to the commanding general, Department of Missouri, for duty as chief surgeon of that department.

Havard, Valery, lieut.-col. and deputy surgeon-general, U. S. A., is relieved from duty at Ft. Monroe, Va., and will proceed to West Point, N. Y., and report in person to the superintendent of the U. S. Military Academy for duty, to relieve Major James D. Glennan, surgeon, U. S. A.

Major Glennan, upon being thus relieved, will proceed to Ft. Myer, Va., and report in person to the commanding officer of that post for duty, and by letter to the commanding general, Department of the East, to relieve Major William B. Davis, surgeon, U. S. A.

Major Davis, on being thus relieved, will proceed to Honolulu, Hawaiian Islands, and report in person to the commanding officer of Camp McKinley for duty at that post and by letter to the commanding general, Department of California, to relieve First Lieutenant Edwin W. Rich, asst.-surgeon, U. S. A.

Lieutenant Rich, on being thus relieved, will proceed to San Francisco, and report by telegraph to the Adjutant-General of the Army for orders.

Johnson, Richard W., major and surgeon, U. S. A., is relieved from further duty as sanitary inspector, Department of California, and from duty in San Francisco, and will proceed to Ft. Monroe, Va., and report in person to the commanding officer of that port for duty and by letter to the commanding general, Department of the East.

Wales, Philip G., captain and asst.-surgeon, is relieved from further duty as attending surgeon and examiner of recruits at Denver, Colo., and will proceed to Ft. Assinniboine, Montana, and report in person to the commanding officer of that post for temporary duty and by letter to the commanding general, Department of Dakota.

Overton, David W., contract surgeon, U. S. A., is relieved from duty at Plattsburgh Barracks, N. Y., and will proceed to Ft. Schuyler, N. Y., and report in person to the commanding officer of that post for duty and by letter to the commanding general, Department of the East, to relieve First Lieutenant Theodore C. Lyster, asst.-surgeon, U. S. A.

Lieutenant Lyster, on being thus relieved, will proceed to New York City, for temporary duty as attending surgeon and examiner of recruits in that city, to relieve Captain James S. Wilson, asst.-surgeon, U. S. A.

Captain Wilson, on being thus relieved, will proceed to Ft. Myer, Va., and report in person to the commanding officer of that post for duty and by letter to the commanding general, Department of the East.

Raymond, Thomas U., major and surgeon, U. S. A., is relieved from further duty as attending surgeon and examiner of recruits at Chicago, and will proceed to Jefferson Barracks, Missouri, and report in person to the commanding officer of that post for duty, and by letter to the commanding general, Department of the Missouri, to relieve Captain Francis A. Winter, asst.-surgeon, U. S. A.

Captain Winter, on being thus relieved, will proceed to St. Louis, Mo., and assume the duties of attending surgeon and examiner of recruits in that city.

Chidester, Walter C., first lieut. and asst.-surgeon, U. S. A., now at San Francisco, is relieved from further duty in the Division of the Philippines, and will report in person to the commanding general, Department of California, for assignment to temporary duty in that department.

Sturtevant, Charles A., contract surgeon, is relieved from further duty at Madison Barracks, N. Y., and will proceed to Ft. Totten, N. Y., and report in person to the commanding officer of that post for duty, to relieve First Lieutenant William N. Bispham, asst.-surgeon, U. S. A.

Lieutenant Bispham, on being thus relieved, will proceed to Ft. McHenry, Md., and report in person to the commanding officer of that post for duty.

Ford, Clyde S., first lieut. and asst.-surgeon, U. S. A., is relieved from further duty at Ft. Hancock, N. J., and will proceed to Ft. Wadsworth, N. Y., and report in person to the commanding officer of the latter post for duty.

Usher, Francis M., first lieut. and asst.-surgeon, U. S. A., is relieved from further duty at the U. S. General Hospital, San Francisco, and will proceed to Ft. Yellowstone, Wyo., and report in person to the commanding officer of that post for duty, relieving Major Edgar A. Mearns, surgeon, U. S. A.

Major Mearns, on being thus relieved, will proceed to Ft. Snelling, Minn., and report in person to the commanding officer of that post for duty.

Beatty, Walter K., contract surgeon, U. S. A., is relieved from further duty at the U. S. General Hospital, San Francisco, and will repair to this city and report by letter to the Surgeon General for annulment of contract.

The leave of absence granted Captain Wm. B. Orear, asst.-surgeon, U. S. Vols., in Special Orders, No. 209, Sept. 18, 1902, Department of California, is extended to include Nov. 18, 1902.

Poëy, Eduardo C., captain and asst.-surgeon, U. S. Vols., is honorably discharged by the Secretary of War from the service of the U. S., to take effect Nov. 25, 1902, his services being no longer required.

Robbins, Chandler P., first lieut. and asst.-surgeon, U. S. A., is granted leave of absence for one month.

Show, Henry A., captain and asst.-surgeon, U. S. A., on arrival at San Francisco, will repair to this city and report in person to the commanding officer of the U. S. General Hospital, Washington Barracks, for duty.

Stewart, Wm. J. S., captain and asst.-surgeon, U. S. Vols., now at San Francisco, is honorably discharged by the Secretary of War

from the service of the U. S., to take effect Oct. 22, 1902, his services being no longer required.

Clossman, August von, contract surgeon, U. S. A., is relieved from further duty at Jefferson Barracks, Missouri, and will proceed to his home, St. Louis, Mo., and on arrival report by letter to the Surgeon General of the Army for annulment of contract.

Wilcox, Charles, major and surgeon, U. S. A., is relieved from further duty in the Division of the Philippines and will proceed to San Francisco, and on arrival report by telegraph to the Adjutant-General of the Army for orders.

By direction of the Secretary of War the following-named asst.-surgeons, U. S. A., are relieved from duty at the posts designated after their respective names, to take effect at such times as will enable them to repair to this city and report in person at 9 o'clock a. m., Nov. 6, 1902, at the Army Medical Museum Building, to Col. Calvin DeWitt, assistant surgeon-general, U. S. A., president of the faculty of the Army Medical School, for the course of instruction prescribed by Paragraphs 542 and 543, Army Regulations, 1901.

Gilchrist, Harry L., first lieut., Vancouver Barracks, Washington.
Gosman, Geo. H. R., first lieut., Ft. Wadsworth, N. Y.
Kirby-Smith, Reynold M., first lieut., Ft. Barrancas, Fla.
Moncrief, Wm. H., first lieut., Ft. Getty, S. C.
Collins, Geo. L., first lieut., Ft. Warren, Mass.
Gapen, Nelson, first lieut., Ft. Myer, Va.
Davis, Wm. T., first lieut., Ft. McHenry, Md.
Morse, Chas. F., first lieut., Ft. Ethan Allen, Vt.
Lambert, Samuel E., first lieut., Washington Barracks, D. C.
Hansell, Hayward S., first lieut., Ft. McPherson, Ga.
Gregory, Junius C., first lieut., Ft. Myer, Va.
Connor, Clarence H., first lieut., U. S. General Hospital, Washington Barracks, D. C.
Pyles, Will L., first lieut., Plattsburgh Barracks, N. Y.
Devereux, Thomas, first lieut., Ft. Snelling, Minn.
Smart, Wm. M., first lieut., Ft. Monroe, Va.
Pierson, Robert H., first lieut., Ft. Columbus, N. Y.
Snoddy, Cary A., first lieut., Ft. Thomas, Ky.
Purnell, Harry S., first lieut., Columbus Barracks, Ohio.
Blanchard, Robert M., first lieut., Columbus Barracks, Ohio.
Bourke, James, first lieut., U. S. General Hospital, San Francisco.

By direction of the Secretary of War a board of medical officers, to consist of Major Louis Brechemin, surgeon, U. S. A.; Major Edward R. Morris, surgeon, U. S. A.; Major Alfred E. Bradley, surgeon, U. S. A.; Captain Henry R. Stiles, asst.-surgeon, U. S. A.; Captain Harry M. Hallock, asst.-surgeon, U. S. A., is appointed to meet in Manila, P. I., as soon as practicable, for the examination of candidates for admission to the Medical Corps of the Army.

Navy Changes.

Changes in the Medical Corps of the Navy, week of Oct. 25, 1902:

Surgeon E. H. Marsteller, ordered to Newark, N. J., October 27, for duty in connection with recruiting.

P. A. Surgeon W. L. Bell, commissioned passed assistant surgeon, with rank of lieutenant (junior grade), from Nov. 16, 1901.

P. A. Surgeon M. W. Garton, detached from the *Columbia* and ordered to the Naval Hospital, Yokohama, Japan, sailing from San Francisco, November 7.

P. A. Surgeon M. K. Johnson, ordered to the Naval Academy.

Asst.-Surgeon J. S. Taylor, detached from the Naval Hospital, Yokohama, Japan, and ordered home and to wait orders.

Asst.-Surgeon R. A. Bachmann, detached from the Naval Academy and ordered to the Naval Museum of Hygiene and Medical School, Washington, D. C., October 31.

Asst.-Surgeon J. H. Holloway, detached from the Naval Hospital, Chelsea, Mass., and ordered to duty at the Museum of Hygiene and Medical School, Washington, D. C.

Asst.-Surgeon R. E. Hoyt, detached from the Naval Academy, and ordered to the Museum of Hygiene and Medical School, Washington, D. C., October 31.

Asst.-Surgeons R. H. Michels, J. L. Neilson, ordered to the Museum of Hygiene and Medical School, Washington, D. C., October 31.

A. A. Surgeons H. Shaw, B. F. Jenness, ordered to the Museum of Hygiene and Medical School, Washington, D. C., October 31.

Orders issued by Commander-in-Chief of Asiatic Station:

Surgeon J. E. Gardner, detached from the Naval Hospital, Yokohama, Japan, and ordered to the *Kentucky*.

Surgeon G. P. Lumsden, ordered to the *New York*.

P. A. Surgeon M. S. Elliott, detached from the *Kentucky* and ordered to the *New York*.

Asst.-Surgeon F. A. Asserson, detached from the *New York* and ordered to the *Kentucky*.

Asst.-Surgeon W. E. High, detached from the *Glacier* and ordered home.

Asst.-Surgeon J. F. Murphy, detached from the Naval Station, Cavite, P. I., and ordered home.

Marine-Hospital Changes.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service, for the seven days ended Oct. 23, 1902:

Surgeon C. R. Banks, granted one day's extension of leave of absence, October 11.

P. A. Surgeon J. H. Oakley, granted leave of absence for one day.

P. A. Surgeon H. S. Mathewson, on being relieved by Asst.-Surgeon W. W. King, to proceed to Detroit, Mich., and report to medical officer in command for duty and assignment to quarters.

Asst.-Surgeon W. W. King, on being relieved by Asst.-Surgeon Jos. Goldberger, to proceed to San Juan, Porto Rico, relieving P. A. Surgeon H. S. Mathewson and assume the duties of chief quarantine officer of the Island of Porto Rico.

Asst.-Surgeon Joseph Goldberger, relieved from duty at Tampico, Mexico, and directed to proceed to Ponce, Porto Rico, relieving Asst.-Surgeon W. W. King and assume command of the service at that port.

A. A. Surgeon S. H. Backus, relieved from duty in the office of the U. S. Consul at Puerto Cortez, Honduras.

A. A. Surgeon W. H. Carson, relieved from duty in the office of the U. S. Consul at Port Limon, Costa Rica.

A. A. Surgeon John Frick, to proceed to Matanzas, Cuba, and assume temporary charge of the service at that port during the absence, on leave, of Asst.-Surgeon R. H. von Ezdorf.

A. A. Surgeon D. W. Goodman, relieved from duty in the office of the U. S. Consul at Bluefields, Nicaragua.

A. A. Surgeon Paul Osterhout, relieved from duty in the office of the U. S. Consul at Bocas del Toro, Colombia.

A. A. Surgeon R. H. Peters, relieved from duty in the office of the U. S. Consul at Belize, British Honduras.

A. A. Surgeon W. B. Robertson, relieved from duty in the office of the U. S. Consul at Ceiba, Honduras.

Senior Pharmacist and Chemist W. F. Macdowell, to report at Bureau for temporary duty.

BOARD CONVENED.

Board convened at Washington, D. C., October 23, for the physical examination of cadets recently appointed in the Revenue Cutter Service. Detail for the Board. Assistant Surgeon-General W. J. Pettus, chairman; Asst.-Surgeon B. S. Warren, recorder.

PROMOTION.

P. A. Surgeon J. B. Stoner promoted to be surgeon, and to rank as such from September 16.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended Oct. 25, 1902:

SMALLPOX—UNITED STATES.

California: Sacramento, Oct. 11-18, 3 cases; San Francisco, Oct. 5-12, 6 cases.
Illinois: Oct. 11-18, Chicago, 3 cases; Freeport, 12 cases.
Indiana: South Bend, Oct. 11-18, 2 cases.
Kentucky: Covington, Oct. 4-18, 21 cases.
Massachusetts: Boston, Oct. 11-18, 6 cases, 3 deaths; Cambridge, Sept. 13-Oct. 4, 1 case, 1 death; Everett, Oct. 11-18, 1 case; Malden, Oct. 11-18, 2 cases.
Michigan: Detroit, Oct. 11-18, 13 cases.
Missouri: St. Louis, Oct. 12-19, 5 cases.
New Hampshire: Nashua, Oct. 11-18, 25 cases.
New Jersey: Newark, Oct. 4-18, 3 cases.
New York: New York, Oct. 11-18, 2 cases.
Ohio: Cincinnati, Oct. 10-17, 2 cases; Cleveland, Oct. 11-18, 34 cases, 5 deaths; Dayton, Oct. 11-18, 1 case; Hamilton, Oct. 11-18, 2 cases.
Pennsylvania: Altoona, Oct. 11-18, 1 case; Erie, Oct. 11-18, 2 cases; Johnstown, Oct. 11-18, 13 cases, 1 death; McKeesport, Oct. 11-18, 1 case; Philadelphia, Oct. 11-18, 2 cases; Pittsburg, Oct. 4-18, 37 cases, 5 deaths; Reading, Oct. 6-13, 2 cases.
South Dakota: Sioux Falls, Oct. 11-18, 1 case.
Utah: Salt Lake City, Sept. 27-Oct 4, 2 cases.
Washington: Tacoma, Oct. 5-12, 1 case.
Wisconsin: Milwaukee, Oct. 11-18, 22 cases.

SMALLPOX—FOREIGN.

Brazil: Pernambuco, Aug. 15-31, 9 deaths; Rio de Janeiro, Sept. 21-28, 18 deaths.
Canada: Amherstburg, Oct. 11-18, 2 cases.
China: Hongkong, Sept. 6-13, 1 death.
Ecuador: Guayaquil, Sept. 27-Oct. 4, 2 deaths.
France: Marseilles, Sept. 1-30, 18 deaths.
Great Britain: Leeds, Oct. 4-11, 1 case; London, Sept. 27-Oct. 4, 4 cases.
India: Bombay, Sept. 16-23, 5 deaths; Calcutta, Sept. 13-20, 2 deaths.
Italy: Palermo, Sept. 20-27, 8 cases, 1 death.
Russia: Moscow, Sept. 20-27, 2 cases, 1 death; Odessa, Sept. 27-Oct. 4, 1 case.

YELLOW FEVER.

Brazil: Rio de Janeiro, Sept. 21-28, 6 deaths.
Colombia: Panama, Oct. 6-13, 8 cases.
Costa Rica: Port Limon, Oct. 2-9, 3 cases.
Ecuador: Guayaquil, Sept. 27-Oct. 4, 2 deaths.
Mexico: Coatzacoalcos, Oct. 4-11, 3 cases, 1 death; Vera Cruz, Oct. 11-18, 20 cases, 4 deaths.

CHOLERA—INSULAR.

Philippine Islands: To Sept. 13, Manila, 3,974 cases, 2,994 deaths; Provinces, 54,173 cases, 37,713 deaths.

CHOLERA—FOREIGN.

Arabia: Hodeidah, Sept. 10-12, 9 deaths.
China: Hongkong, Sept. 6-13, 1 case, 1 death
Egypt: Sept. 6-20, 7,235 cases, 13,763 deaths; Alexandria, Sept. 13-20, 82 cases, 208 deaths; Cairo, Sept. 13-20, 28 cases, 102 deaths; Damietta, Sept. 13-20, 52 cases, 182 deaths; Ismailia, Sept. 13-20, 5 cases, 8 deaths; Port Said, Sept. 13-20, 2 cases, 3 deaths; Suez, Sept. 13-20, 31 cases, 41 deaths.
India: Calcutta, Sept. 13-20, 12 deaths; Madras, Aug. 23-Sept. 12, 1 death.
Japan: Fukuoka Ken, to Sept. 22, 1,042 cases, 646 deaths; Hiroshima Ken, to Sept. 22, 706 cases; Kagawa Ken, to Sept. 22, 2,344 cases; Nagasaki, Sept 11-20, 52 cases, 34 deaths; Okayama Ken, Sept. 11-20, 2,140 cases, 1,455 deaths; Osaka, Sept. 20-27, 45 cases, 28 deaths.

PLAGUE—INSULAR.

Hawaii: Honolulu, Oct. 14, 1 case.

PLAGUE—FOREIGN.

Africa: To Aug. 9, Cape Peninsula, 745 cases, 362 deaths; Port Elizabeth, 135 cases, 66 deaths; Mossel Bay, 13 cases, 4 deaths; other places, 14 cases, 6 deaths.
Australia: New Castle, Aug. 1-31, 1 case, 1 death.
Brazil: Rio de Janeiro, Sept. 21-28, 11 deaths.
China: Hongkong, Sept. 6-13, 1 case, 1 death.
India: Bombay, Sept. 16-23, 55 deaths; Calcutta, Sept. 13-20, 8 deaths; Karachi, Sept. 14-21, 22 cases, 14 deaths; Madras, Aug. 23-Sept. 12, 1 death.
Russia: Odessa, from June to Oct. 4, 43 cases, 14 deaths.